



L5 ANSWER 1 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:1289276 CAPLUS  
 DN 144:27590  
 TI Formulation obtained from a powder mixture comprising an inorganic pigment and a thermoplastic binder  
 IN Fastnacht, Katja; Degenhardt, Matthias; Berndt, Gunther; Rosenberg, Joerg;  
 Breitenbach, Joerg  
 PA Abbott GmbH & Co. KG, Germany  
 SO PCT Int. Appl., 16 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005115343	A2	20051208	WO 2005-EP5806	20050530

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, ME, MG, MK, MN, MW, MX, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

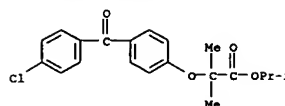
PRAI EP 2004-12791 A 20040528  
 AB Disclosed is a solid formulation with a matrix having at least one active ingredients homogeneously dispersed in the matrix, which is obtained by melting a powder mixture, wherein the powder mixture contains at least

one thermoplastic binding agent and a combination of highly dispersed silicic acid and an inorg. pigment. The combined use of highly dispersed silicic acid and inorg. pigment provides a better flow performance of the powder mixture, causes a more rapid release of active ingredients from the formulation thus obtained and gives these formulations an optically attractive appearance. Disclosed is also a method for the production of the

inventive formulation.  
 IT 49562-28-9, Fenofibrate  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (formulation obtained from a powder mixture comprising an inorg. pigment and a thermoplastic binder)

RN 49562-28-9 CAPLUS  
 CN Propanoic acid, 2-[[4-(4-chlorobenzoyl)phenoxy]-2-methyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 1 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L5 ANSWER 2 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:371311 CAPLUS  
 DN 142:431684  
 TI Pigments concentrates and their use for substrate coloration and printing inks.  
 IN Hees, Ulrike; Kluge, Michael; Schoepke, Holger; Siemensmeyer, Karl; Winter, Dominik  
 PA BASF Aktiengesellschaft, Germany  
 SO PCT Int. Appl., 57 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005037930	A1	20050428	WO 2004-EP11253	20041008

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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

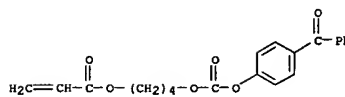
PRAI DE 10348464 A 20031014  
 DE 2003-10348464 A 20031014  
 AB A pigment concentrate comprising (A)  $\geq 1$  particulate pigment which is treated according to a method comprising the following steps: (a) mixing the particulate pigment with a nonionic surfactant, (b) dispersing the mixture of particulate pigment and nonionic surfactant in water, (c) polymerizing

$\geq 1$  first monomer (usually vinylarom. and acrylic monomers) in the presence of a dispersion (b), whereby water-insol. polymer or copolymer is formed on the surface of the particulate pigments; (d) adding  $\geq 1$  s comonomer or a second mixture of comonomers and copolymn. (resulting copolymer having glass transition temperature  $< 0^\circ$ ) and (B)  $\geq 1$  radiation-curable component is used for ink-jet printing inks, especially for printing on textile substrates.

IT 131513-00-3  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)  
 (radiation-curable component; pigment concentrate comprising particulate pigment and radiation-curable component for ink-jet printing inks, especially for printing on textile substrates)

RN 131513-00-3 CAPLUS  
 CN 2-Propenoic acid, 4-[[4-(benzoylphenoxy)carbonyl]oxy]butyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 2 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

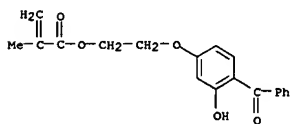
L5 ANSWER 3 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:235200 CAPLUS  
 DN 142:325964  
 TI Water-thinned inks and ink-jet recording method using them for forming images with excellent light, oxidative gas, and ink spread resistance  
 IN Asatake, Atsushi; Ninomiya, Hidetaka  
 PA Konica Minolta Holdings, Inc., Japan  
 SO Jpn. Kokai Tokkyo Koho, 48 pp.  
 CODEN: JKKXGAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2005068267	A2	20050317	JP 2003-298427	20030822
PRAI JP 2003-298427		20030822		
OS MARPAT 142:325964				

AB The inks contain colored core-shell microparticles containing oil-soluble dyes and polymers, wherein discoloration inhibitors (UV absorbers or antioxidants, preferably) are contained in the cores and the polymers may be selected from those bearing acetal, carbonate ester, or OH groups and vinyl polymers.

IT 16613-04-0  
 RL: TEM (Technical or engineered material use); USES (Uses) (discoloration inhibitor, core; ink-jet dye inks containing colored core-shell microparticles for forming images with good light, oxidative gas, and ink spread resistance)

RN 16613-04-0 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(4-benzoyl-3-hydroxyphenoxy)ethyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 4 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L5 ANSWER 4 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:220215 CAPLUS  
 DN 142:285298  
 TI Process for manufacturing intraocular lenses with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes  
 IN Lai, Yu-Chin; Ruscio, Dominic V.; Green, George F.  
 PA USA  
 SO U.S. Pat. Appl. Publ., 6 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 1

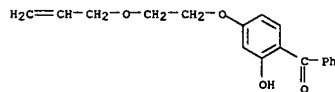
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2005055090	A1	20050310	US 2003-657356	20030908
WO 2005026787	A1	20050324	WO 2004-US26776	20040819

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-657356 A 20030908  
 AB A process for producing intraocular lenses (IOLs) capable of absorbing blue light and UV light using photo curing. Intraocular lenses so produced block blue light and UV light from reaching the retina of an eye implanted with the IOL. By blocking blue light and UV light from reaching the retina, the IOL thereby prevents potential damage to the retina.

IT 71819-94-8  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (UV absorbent; process for manufacturing intraocular lenses with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

RN 71819-94-8 CAPLUS  
 CN Methanone, [2-hydroxy-4-[(2-(2-propenyloxy)ethoxy)phenyl]phenyl- (9CI) (CA INDEX NAME)



L5 ANSWER 5 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:872823 CAPLUS  
 DN 141:366906  
 TI Light stabilizing polymer dispersants in pigment dispersions  
 IN Vogel, Thomas; Soder, Sibyller; Simmendinger, Peter  
 PA Ciba Specialty Chemicals Holding Inc., Switz.  
 SO PCT Int. Appl., 96 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004090030	A1	20041021	WO 2004-EP50386	20040329

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 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2520066 AA 20041021 CA 2004-2520066 20040329  
 EP 1611197 A1 20060104 EP 2004-724025 20040329

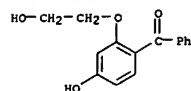
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK  
 PRAI EP 2003-405235 A 20030908  
 WO 2004-EP50386 W 20040329

OS MARPAT 141:366906  
 AB Polymers based on esters of unsatd. acids and having light-protecting groups attached to the chains are manufactured by atom-transfer radical polymerization

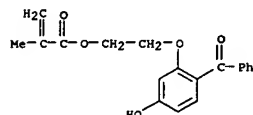
and are useful for dispersants of pigments in compns. based on materials susceptible to degradation by light, heat, and oxidation so as to prevent this degradation A typical polymer was manufactured by polymerization of Bu methacrylate in the presence of CuCl, pentamethyldiethylenetriamine (I), and p-toluenesulfonic acid, polymerization of glycidyl methacrylate in the presence of the resulting polymer, I, and CuCl, and reaction of the resulting block copolymer with 2,4-bis[4-(1,1'-biphenyl)]-6-(2,4-dihydroxyphenyl)triazine.

IT 776323-59-2  
 RL: RCT (Reactant); RACT (Reactant or reagent) (light stabilizer precursor; light-stabilizing polymer dispersants for pigments in compns. based on polymers susceptible to light degradation)  
 RN 776323-59-2 CAPLUS  
 CN Methanone, [4-hydroxy-2-(2-hydroxyethoxy)phenyl]phenyl- (9CI) (CA INDEX NAME)

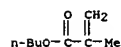
L5 ANSWER 5 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 776323-58-1P  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (light-stabilizing polymer dispersants for pigments in compns. based on polymers susceptible to light degradation)  
 RN 776323-58-1 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(2-benzoyl-5-hydroxyphenoxy)ethyl ester, polymer with butyl 2-methyl-2-propenoate, diblock (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 776323-57-0  
 CMF C19 H18 O5

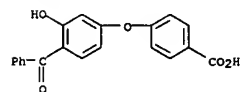


CM 2  
 CRN 97-88-1  
 CMF C8 H14 O2

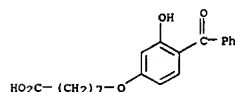


RE.CMT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

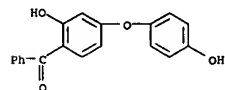
L5 ANSWER 6 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



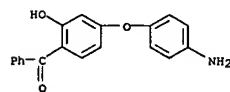
RN 761443-22-5 CAPLUS  
 CN Octanoic acid, 8-(4-benzoyl-3-hydroxyphenoxy)- (9CI) (CA INDEX NAME)



RN 761443-23-6 CAPLUS  
 CN Methanone, [2-hydroxy-4-(4-hydroxyphenoxy)phenyl]phenyl- (9CI) (CA INDEX NAME)



RN 761443-24-7 CAPLUS  
 CN Methanone, [4-(4-aminophenoxy)-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)



IT 88794-56-3P, 2-Hydroxy-4-(6-hydroxyhexyloxy)benzophenone  
 761443-21-4P, 4-(4-Carboxyphenoxy)-2-hydroxybenzophenone  
 761443-22-5P, 4-(7-Carboxyheptyloxy)-2-hydroxybenzophenone  
 761443-23-6P, 4-(4-Hydroxyphenoxy)-2-hydroxybenzophenone  
 761443-24-7P, 4-(4-Aminophenoxy)-2-hydroxybenzophenone  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);  
 RACT (Reactant or reagent)  
 (improvement of light resistance of azo or anthraquinone dyes or pigments by reaction with benzophenone derivs. for inks)  
 RN 88794-56-3 CAPLUS

APPLICANT

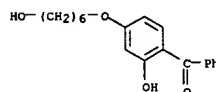
L5 ANSWER 6 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:779905 CAPLUS  
 DN 141:297361  
 TI Lightfast colorant and lightfast ink composition including the same  
 IN Lee, Kyung-hoon; Ryu, Seung-min; Jung, Yeon-kyoung  
 PA Samsung Electronics Co., Ltd., S. Korea  
 SO U.S. Pat. Appl. Publ., 22 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CMT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004182279	A1	20040923	US 2004-802949	20040318
PRAI KR 2003-17746	A	20030321		
OS MARPAT 141:297361				

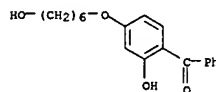
AB A lightfast colorant and a lightfast ink composition include a lightfast colorant that is derived by covalently binding a benzophenone derivative and a conventional colorant and that imparts effective lightfastness and long-term storage stability to an ink composition that is prepared with the same.  
 A typical dye was manufactured by reacting 8.3 g 2-hydroxy-4-(4-carboxyphenoxy)benzophenone 8 h in DMSO with 3 g SOCl2, adding 12.3 g C.I.

IT 88794-56-3DP, 2-Hydroxy-4-(6-hydroxyhexyloxy)benzophenone, reaction products with dyes and pigments  
 761443-21-4BP, reaction products with dyes and pigments  
 761443-22-5BP, reaction products with dyes and pigments  
 761443-23-6BP, reaction products with dyes and pigments  
 761443-24-7BP, reaction products with dyes and pigments  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (improvement of light resistance of azo or anthraquinone dyes or pigments by reaction with benzophenone derivs. for inks)  
 RN 88794-56-3 CAPLUS  
 CN Methanone, [2-hydroxy-4-[(6-hydroxyhexyl)oxy]phenyl]phenyl- (9CI) (CA INDEX NAME)

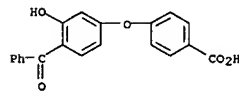


RN 761443-21-4 CAPLUS  
 CN Benzoic acid, 4-(4-benzoyl-3-hydroxyphenoxy)- (9CI) (CA INDEX NAME)

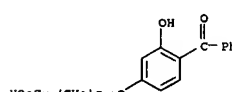
L5 ANSWER 6 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CN Methanone, [2-hydroxy-4-[(6-hydroxyhexyl)oxy]phenyl]phenyl- (9CI) (CA INDEX NAME)



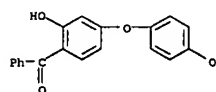
RN 761443-21-4 CAPLUS  
 CN Benzoic acid, 4-(4-benzoyl-3-hydroxyphenoxy)- (9CI) (CA INDEX NAME)



RN 761443-22-5 CAPLUS  
 CN Octanoic acid, 8-(4-benzoyl-3-hydroxyphenoxy)- (9CI) (CA INDEX NAME)



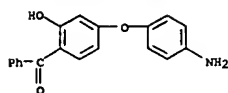
RN 761443-23-6 CAPLUS  
 CN Methanone, [2-hydroxy-4-(4-hydroxyphenoxy)phenyl]phenyl- (9CI) (CA INDEX NAME)



RN 761443-24-7 CAPLUS  
 CN Methanone, [4-(4-aminophenoxy)-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)

L5 ANSWER 6 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



L5 ANSWER 7 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:586727 CAPLUS

DN 139:136074

TI Pigment sensitized photoelectrochemical cell

IN Noda, Nobuhisa; Nakamura, Junichi

PA Nippon Shokubai Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKOXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003217690	A2	20030731	JP 2002-10691	20020118
PRAI JP 2002-10691		20020118		

AB The photoelectrochem. cell has a UV shielding layer on its light incident side, where the layer is a formed from a composition containing a copolymer of a monomer having UV absorbing groups, a monomer having C2-4 alkyl groups, and/or a monomer having UV stabilizing groups; or a composition containing a polymer of a monomer having C2-4 alkyl groups and/or a monomer having UV stabilizing groups mixed with a UV absorbing additive.

IT 569367-57-3  
 RL: DEV (Device component use); USES (Uses)  
 (UV shielding coatings for pigment sensitized photoelectrochem. cells)

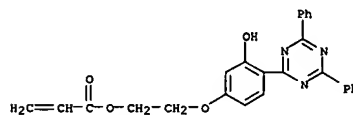
RN 569367-57-3 CAPLUS

CN 2-Propenoic acid, 2-methyl-, cyclohexyl ester, polymer with 2-(4-benzoyl-3-hydroxyphenoxy)ethyl 2-propenoate, 2-[4-(4,6-diphenyl-1,3,5-triazin-2-yl)-3-hydroxyphenoxy]ethyl 2-propenoate, 2-ethylhexyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 1,2,2,6,6-pentamethyl-4-piperidinyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 176225-24-4

CMF C26 H21 N3 O4



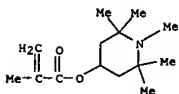
CM 2

CRN 68548-08-3

CMF C14 H25 N O2

L5 ANSWER 7 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

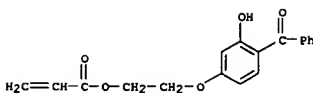
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CM 3

CRN 16432-81-8

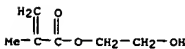
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CM 4

CRN 868-77-9

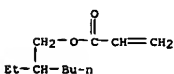
CMF C6 H10 O3



CM 5

CRN 103-11-7

CMF C11 H20 O2



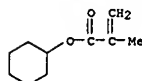
CM 6

CRN 101-43-9

CMF C10 H16 O2

L5 ANSWER 7 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

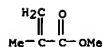
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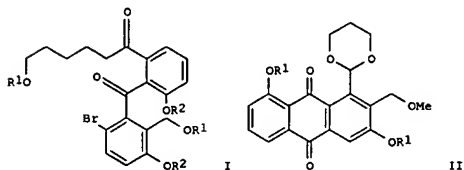
CM 7

CRN 80-62-6

CMF C5 H8 O2



L5 ANSWER 8 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2003:314034 CAPLUS  
 DN 139:133365  
 TI Studies towards the total synthesis of mumbaistatin: synthesis of highly substituted benzophenone and anthraquinone building blocks  
 AU Kaiser, Florian; Schwink, Lothar; Velder, Janna; Schmalz, Hans-Gunther  
 CS Institut für Organische Chemie, Universität zu Köln, Köln, D-50939, Germany  
 SO Tetrahedron (2003), 59(18), 3201-3217  
 CODEN: TETRA; ISSN: 0040-4020  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 OS CASREACT 139:133365  
 GI

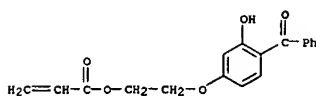


AB Model compds. and building blocks for a planned total synthesis of the highly potent glucose-6-phosphate (G6P) translocase inhibitor mumbaistatin and structural analogs were elaborated. Mumbaistatin represents a lead structure in the development of potential new antidiabetic drugs. With the model substrate I (R1 = SiMe2CHMe3, R2 = CH2OMe) it was demonstrated that highly functionalized, tetra-ortho-substituted benzophenones can be prepared by nucleophilic addition of an aryllithium-building block to a benzaldehyde followed by oxidation. For II (R1 = CH2OMe), a potential precursor of the anthraquinone part of mumbaistatin, various approaches via arylne/phthalide annulations were developed and evaluated. The required functionalized arenes were prepared exploiting, among others, regioselective bromination and ortho-lithiation reactions. Coupling reactions of the anthracene-carbaldehyde derived from with various metalated arenes proved to be unexpectedly difficult and failed so far.  
 IT 565176-52-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of benzophenone and anthraquinone precursors to mumbaistatin via nucleophilic addition, oxidation, ortho-lithiation, and regioselective bromination)  
 RN 565176-52-5 CAPLUS  
 CN 1-Hexanone,  
 1-[2-[6-bromo-2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl

L5 ANSWER 9 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2003:147820 CAPLUS  
 DN 138:195987  
 TI Light-resistant dye-diffusion receptor sheets for thermal transfer printing  
 IN Fujii, Hiroyuki; Miyazaki, Nobuyuki; Osawa, Nagako  
 PA Asahi Glass Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKKXAF  
 DT Patent  
 LA Japanese  
 FAN.CMT 1

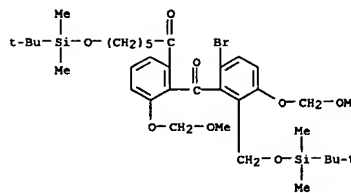
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003054142	A2	20030226	JP 2001-248140	20010817
PRAI JP 2001-248140		20010817		

AB Receptor layers contain copolymers of 1-70 mol% benzophenones, triazines, and hindered amines having polymerizable double bonds with 30-99 mol% vinyl monomers having hydrophilic groups. Thus, a receptor having good coloring properties and light resistance contained 100 parts Vylonal MD 1100 and 5 parts 30:70 (molar) 2-hydroxy-4-(2-acryloyloxy)ethoxybenzophenone-polyethylene glycol acrylate copolymer.  
 IT 494858-93-4 494858-94-5  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (light-resistant dye-diffusion thermal transfer printing receptor sheets)  
 RN 494858-93-4 CAPLUS  
 CN 2-Propenoic acid, 2-(4-benzoyl-3-hydroxyphenoxy)ethyl ester, polymer with α-hydroxy-ω-hydroxypoly(oxy-1,2-ethanediyl) 2-propenoate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 16432-81-8  
 CMF C18 H16 O5



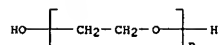
CM 2  
 CRN 60182-11-8  
 CMF C3 H4 O2 . x (C2 H4 O)n H2 O  
 CM 3  
 CRN 25322-68-3  
 CMF (C2 H4 O)n H2 O  
 CCI PMS

L5 ANSWER 8 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 ]-3-(methoxymethoxy)benzoyl]-3-(methoxymethoxy)phenyl]-6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]- (9CI) (CA INDEX NAME)

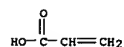


RE.CMT 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

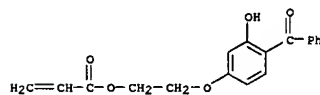
L5 ANSWER 9 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



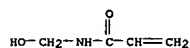
CM 4  
 CRN 79-10-7  
 CMF C3 H4 O2



RN 494858-94-5 CAPLUS  
 CN 2-Propenoic acid, 2-(4-benzoyl-3-hydroxyphenoxy)ethyl ester, polymer with N-(hydroxymethyl)-2-propenamamide (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 16432-81-8  
 CMF C18 H16 O5



CM 2  
 CRN 924-42-5  
 CMF C4 H7 N O2



L5 ANSWER 10 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN  
 AN 2002:707097 CAPLUS  
 DN 137:255354  
 TI Coating composition for forming weather-resistant film on ink-jet printed image  
 IN Nishida, Nobuhiko  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 36 pp.  
 CODEN: JKOXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

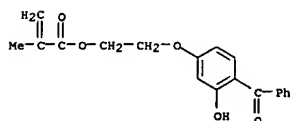
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002264465	A2	20020918	JP 2001-67019	20010309
JP 2001-67019		20010309		

AB The composition contains colorant-free polymer particles and preferably UV-absorbing monomer-containing polymers. Ink-jet printing method by recording image on white inorg. pigment-containing paper and forming a film on the printed paper with the composition, is also claimed. The film formed with the composition gives water-, light- and weather-resistant image.

IT 30528-51-9  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (UV-absorbing; coating composition containing colorant-free polymer particles for forming weather-resistant film on ink-jet printed image)  
 RN 30528-51-9 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(4-benzoyl-3-hydroxyphenoxy)ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

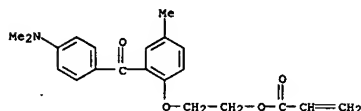
CRN 16613-04-0  
 CMF C19 H18 O5



L5 ANSWER 11 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN  
 AN 2002:629302 CAPLUS  
 DN 137:338294  
 TI Polymerizable benzophenone derivatives for labeling vinyl acetate-butyl acrylate latex particles  
 AU Oh, Jung Kwon; Wu, Jun; Winnik, Mitchell A.; Craun, Gary P.; Rademacher, Jude; Farwaha, Rajeev  
 CS Department of Chemistry, University of Toronto, Toronto, ON, M5S 3H6, Can.  
 SO Journal of Polymer Science, Part A: Polymer Chemistry (2002), 40(17), 3001-3011  
 CODEN: JPACEC; ISSN: 0887-624X  
 PB John Wiley & Sons, Inc.  
 DT Journal  
 LA English  
 AB Three new polymerizable benzophenone derivs., i.e., 2-acryloxy-5-methylbenzophenone, 4'-dimethylamino-2-acryloxy-5-methylbenzophenone (I), and 4'-dimethylamino-2-(β-acryloxyethyl)oxy-5-methylbenzophenone (II), are synthesized and characterized. These monomers can successfully be incorporated into vinyl acetate (VAc) copolymer latex particles.

These particles were prepared by semicontinuous emulsion polymerization and mini-emulsion polymerization of VAc with Bu acrylate (BA) for VAc/BA = 4/1 by weight. The two monomers I and II bearing the 4'-dimethylamino group satisfy the important spectroscopic criteria required of a dye to serve as an acceptor chromophore for nonradiative energy transfer from phenanthrene (Phe) as the donor. Their UV absorption spectra suggest significant overlap with the emission spectrum of Phe, which can be incorporated into P(VAc-co-BA) latex through copolymerization with 9-acryloxymethyl Phe. In addition, these chromophores provide a window in their absorption spectra for excitation of the Phe chromophore at 300 nm.

IT 473975-15-4P  
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (monomer, dye acceptor label; polymerizable benzophenone derivs. for labeling vinyl acetate-Bu acrylate latex particles)  
 RN 473975-15-4 CAPLUS  
 CN 2-Propenoic acid, 2-[2-(4-(dimethylamino)benzoyl)-4-methylphenoxy]ethyl ester (9CI) (CA INDEX NAME)



RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)

L5 ANSWER 12 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN  
 AN 2002:313283 CAPLUS  
 DN 136:332867  
 TI Optical filter comprising polymer, aggregated dye, and ultraviolet absorbent  
 IN Yabuki, Yoshiharu  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 42 pp.  
 CODEN: JKOXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002122731	A2	20020426	JP 2000-316966	20001017
US 2002171606	A1	20021121	US 2001-978029	20011017
US 6875512	B2	20050405		
PRAI JP 2000-316966	A	20001017		

OS MARPAT 136:332867  
 GI

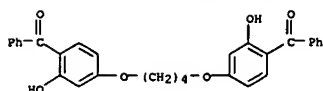
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The optical filter comprises a transparent substrate coated with a filter layer containing a polymer binder and aggregated dyes having maximum absorption at 750-1100 nm, and contains UV absorbent selected from I (benzene rings may be substituted), II (Ar1 = aryl, aromatic heterocycle; L = bond, O; benzene ring may be substituted), III (benzene ring and triazine ring may be substituted, and benzene ring may be condensed), IV (benzene rings may be substituted), R1Ar2C:CR2R3, R4R5NCH:CHCH:CR6R7, V (Ar2 = aryl, aromatic heterocycle; R1 = H, alkyl; R2-3, R6-7, R9-10 = CN, COR13, COR14, COR15R16; SO2R17, SO2NR18R19; R13-19 = H, alkyl, aryl; R4-5 = H, alkyl, aryl; R8 = alkyl, aryl; XY = CR34R35CR36R37, CR38:CR39; R34-39 = H, alkyl, aryl; Z = O, S, NR40, CR41R42, CH:CH; R40 = alkyl, aryl; R41-42 = H, alkyl; n = 0-10), and R11PhC:NN:CR12Ph (R11-12 = H, alkyl, aryl; benzene rings may be substituted or condensed) in the substrate, the filter layer, or other layer(s). In a plasma display panel having display surface covered with an optical filter comprising a transparent substrate and a filter layer, the filter layer has maximum absorption at 300-390, 560-620, 750-850, 851-950, and 951-1100 nm. The filter shows good durability, selectively cuts IR and light causing decrease of the color purity, and is useful for plasma display panel.

IT 23911-80-0  
 RL: DEV (Device component use); USES (Uses)  
 (UV absorbent; optical filter comprising polymer binder, aggregated dye, and UV absorbent for plasma display panel)  
 RN 23911-80-0 CAPLUS  
 CN Methanone, [1,4-butanediylbis(oxy(2-hydroxy-4,1-phenylene))]bis[phenyl- (9CI) (CA INDEX NAME)]

L5 ANSWER 12 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



L5 ANSWER 13 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:737005 CAPLUS

DN 135:290288

TI Aqueous ink-jet inks with water and light resistance and printing method therewith

IN Yamada, Masato; Yabuki, Yoshiharu

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 50 pp.

CODEN: JKOXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001279141	A2	20011010	JP 2000-95580	20000330
JP 2000-95580		20000330		
MARPAT 135:290288				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title high b.p. organic solvent-soluble oil dye-dispersed inks, showing good

penetration to electrophotog. receptors, contain I, II (Ar301 = aryl or aromatic heterocyclic group; L = a single bond or O), III (the d benzene ring

could condensed with other aromatic or heterocyclic rings),

PhNHC(O)C(O)NHPH.

R1Ar302C:CR2R3 (Ar302 = aryl or aromatic heterocyclic group; R1 = H, alkyl;

R2, R3 = functional group or combined into 5- or 6-membered ring), R4R5NCH:CHCH:CR6R7 (R4, R5 = H, alkyl, aryl or combined into 5- or 6-membered ring; R6, R7 = functional group or combined into 5- or 6-membered ring), IV (R308 = (substituted) alkyl or aryl; R309, R310 = functional group or combined into 5- or 6-membered ring; X, Y = substituted hydrocarbylene), and (R11)PhC:NN:C(R12)Ph (R11, R12 = H, alkyl, aryl or combined into 5- or 6-membered ring) with all the Ph, aromatic, or hetero rings of above compds. optionally having substituted groups. An ink set was prepared from oil dyes, high b.p. phosphate solvents, surfactants, and V showed discharge stability initially and after 2 days at 60°, good water, smudge, light, and moisture (1 wk at 70-80% relative humidity) resistance.

IT 3739-71-7 21121-98-2

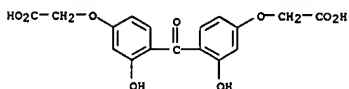
RL: MGA (Modifier or additive use); USES (Uses) (specific compound-containing oil dye-based aqueous ink-jet inks with light, water, smudge, and moisture resistance)

RN 3739-71-7 CAPLUS

CN Acetic acid, 2,2'-[carbonylbis[(3-hydroxy-4,1-phenyleneoxy)]bis- (9CI) (CA INDEX NAME)

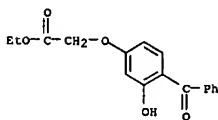
L5 ANSWER 13 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



RN 21121-98-2 CAPLUS

CN Acetic acid, (4-benzoyl-3-hydroxyphenoxy)-, ethyl ester (8CI, 9CI) (CA INDEX NAME)



L5 ANSWER 14 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:388917 CAPLUS

DN 135:12190

TI Optical filter and antireflective film for plasma display panel

IN Yabuki, Yoshiharu

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKOXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001147319	A2	20010529	JP 2000-159820	20000530
US 6307671	B1	20011023	US 2000-583743	20000531
JP 1999-152823	A	19990531		
JP 1999-252731	A	19990907		

OS MARPAT 135:12190

AB The filter or the film comprises (A) a transparent support, (B) a filter containing an associated dye and a polymer binder, and optional (C) a low-refractive index layer, wherein A-C or any other layer contains a specific UV absorber, e.g., N-(hydroxyphenyl)benzotriazole derivative, (hydroxyphenyl)triazine derivative, N,N'-diphenyloxalamide derivative, etc.

The filter or the film shows good light resistance and color correction.

IT 23911-80-0

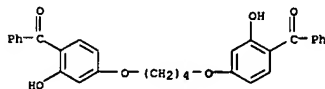
RL: TEM (Technical or engineered material use); USES (Uses)

(UV absorber; optical filter and antireflective film containing associated

methine dye and UV absorber for plasma display panel)

RN 23911-80-0 CAPLUS

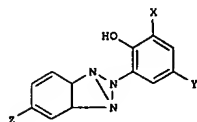
CN Methanone, [1,4-butanediylbis[oxy(2-hydroxy-4,1-phenylene)]]bis[phenyl- (9CI) (CA INDEX NAME)





L5 ANSWER 15 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2000:144540 CAPLUS  
 DN 132:173441  
 TI Protective layer transfer sheet and image-printed matter  
 IN Saito, Hitoshi; Takao, Shino; Matsufuji, Yuji  
 PA Dai Nippon Printing Co., Ltd., Japan  
 SO Eur. Pat. Appl., 32 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 982150	A2	20000301	EP 1999-116712	19990826
EP 982150	A3	20000419		
EP 982150	B1	20021106		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000071619	A2	20000307	JP 1998-255998	19980826
JP 2000071626	A2	20000307	JP 1998-260848	19980831
US 6346316	B1	20020212	US 1999-382693	19990825
EP 1228894	A1	20020807	EP 2002-9268	19990826
EP 1228894	B1	20051102		
R: DE, FR, GB				
PRAI JP 1998-255998	A	19980826		
JP 1998-260848	A	19980831		
EP 1999-116712	A3	19990826		
OS MARPAT 132:173441				
GI				



AB There is provided a protective layer transfer sheet comprising a substrate and a thermally transferable protective layer provided on at least a part of one side of the substrate, the protective layer comprising an alicyclic polyester resin prepared using an alicyclic compound as  $\geq 1$  diol component and an acid component. There is further provided a protective layer transfer sheet comprising a substrate and a thermally transferable protective layer provided on at least a part of one side of the substrate, the protective layer comprising a thermoplastic resin and a UV absorber, the UV absorber being a benzotriazole derivative represented by the formula I  
 (X, Y = an optionally branched alkyl or aralkyl group having 4 to 10

L5 ANSWER 16 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1999:630339 CAPLUS  
 DN 131:250473  
 TI Thermal-transfer protecting layer sheet  
 IN Onishi, Jiro; Oshima, Katsuyuki  
 PA Dai Nippon Printing Co., Ltd., Japan  
 SO Eur. Pat. Appl., 25 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 945282	A1	19990929	EP 1999-302351	19990326
EP 945282	B1	20030702		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11277899	A2	19991012	JP 1998-81285	19980327
US 6245429	B1	20010612	US 1999-276631	19990325
PRAI JP 1998-81285	A	19980327		

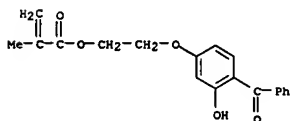
AB A thermal-transfer protecting layer sheet comprises a substrate, a nontransferable release layer, and a thermally transferable protecting layer, the protecting layer being disposed on at least one area of a surface of the substrate by the medium of the release layer. The nontransferable release layer comprises at least a crosslinking resin having a chemical structure comprises at least a side chain A and a side chain B on a principle chain formed of a carbon chain and crosslinking at least a part of the side chain A and the side chain B. Therefore, the adhesive strength between the substrate and the nontransferable release layer can always be stronger than the adhesive strength between the nontransferable release layer and the protecting layer.

IT 25189-68-8, UVA635L  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (thermal-transfer protecting layer sheets for sublimation dye images containing)

RN 25189-68-8 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(4-benzoyl-3-hydroxyphenoxy)ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 16613-04-0  
 CMF C19 H18 O5



CM 2

CRN 80-62-6  
 CMF C5 H8 O2

L5 ANSWER 15 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 carbon atoms; Z = a hydrogen or chlorine atom), the content of the UV absorber in the protective layer being 10-40 wt.%. There is still further provided a print comprising a substrate and, provided on at least one side of the substrate, a dye image and a protective layer covering at least a part of the dye image, the protective layer having been formed by transfer

from any one of the above protective layer transfer sheets.  
 IT 25189-68-8, UVA 635L

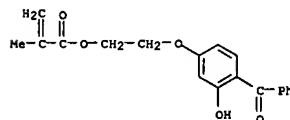
RL: TEM (Technical or engineered material use); USES (Uses)  
 (prints containing dye images covered with protective layers formed from thermal-transfer sheets containing)

RN 25189-68-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(4-benzoyl-3-hydroxyphenoxy)ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

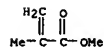
CM 1

CRN 16613-04-0  
 CMF C19 H18 O5

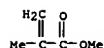


CM 2

CRN 80-62-6  
 CMF C5 H8 O2

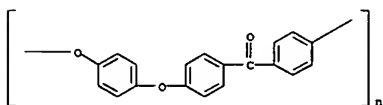


L5 ANSWER 16 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



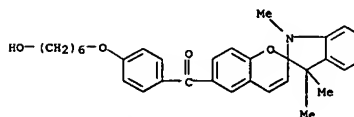
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN  
 AN 1999:211142 CAPLUS  
 DN 130:352991  
 TI Guest-host interactions in organic dye-doped matrix polymers  
 AU Venkatasubramanian, N.; Nagvekar, Devdatt S.; Vaia, Richard A.; Price, Gary E.; Tan, Loon-Seng; Arnold, Fred E.  
 CS Systran Federal Corporation, Dayton, OH, 45432, USA  
 SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1999), 40(1), 191-192  
 CODEN: ACPPAY; ISSN: 0032-3934  
 PB American Chemical Society, Division of Polymer Chemistry  
 DT Journal  
 LA English  
 AB Acid-base interaction-mediated compatibilization of organic dyes containing structurally diverse basic functionalities was investigated in a sulfonic acid-pendent poly(arylene ether ketone) copolymer (CSPK-1) matrix. While the absorption behavior of 4-(6-N,N-diphenylamino-2-naphthyl)vinylpyridine (AF-80) guest-host system revealed a considerable red shift in the solid state due to the protonation of the pyridyl acceptor functionality, the absorption behavior of the blend consisting of an unsym. squaraine dye with diphenylamine and aniline donors and CSPK-1 in the solid state revealed a dye absorption with a red shift of 15 nm, attributable to the tendency of the dye mols. to form dimeric donor-acceptor charge transfer aggregates.  
 IT 31694-16-3D, PEEK, sulfonated  
 RL: PRP (Properties)  
 (guest-host interactions in organic dye-doped matrix polymers)  
 RN 31694-16-3 CAPLUS  
 CN Poly(oxy-1,4-phenyleneoxy-1,4-phenylenecarbonyl-1,4-phenylene) (9CI) (CA INDEX NAME)



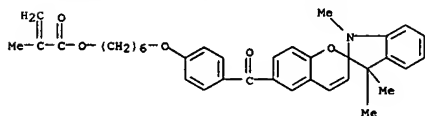
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN  
 AN 1998:765496 CAPLUS  
 DN 130:96845  
 TI Synthesis and polymerization of 6-(alkyloxyphenyl)carbonyl substituted spirobenzopyran  
 AU Choi, Yoon-Ki; Kim, Eunkyong; Keum, Sam-Rok  
 CS Advanced Materials Div., Korea Res. Inst. Chem. Technol., Taejeon, 305-600, S. Korea  
 SO Tetrahedron Letters (1998), 39(48), 8861-8864  
 CODEN: TELEAY; ISSN: 0040-4039  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 AB The methacrylate ester of a spirobenzopyran (COSP) was synthesized starting from 5-(4-hydroxybenzoyl)salicylaldehyde and N-methylindoline, followed by hydroxyalkylation with 6-chloro-1-hexanol, with the resulting COSP being treated with methacryloyl chloride. The COSP methacrylate was copolyd. with styrene and Bu methacrylate to give a terpolymer (PCOSP). COSP methacrylate and PCOSP were thermally more stable than 6-nitrospirobenzopyran. Fast photochromic coloration was observed for COSP-doped PMMA or a PCOSP film upon irradiation at 340 nm.  
 IT 219559-99-6B  
 RL: MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (photochromic material and monomer precursor; preparation of polymerizable spirobenzopyran dye)  
 RN 219559-99-6 CAPLUS  
 CN Methanone, (1',3'-dihydro-1',3',3'-trimethylspiro[2H-1-benzopyran-2,2'-(2H)indol]-6-yl){4-[(6-hydroxyhexyl)oxy]phenyl}- (9CI) (CA INDEX NAME)



IT 219560-10-8B  
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (photochromic monomer; preparation of polymerizable spirobenzopyran dye)  
 RN 219560-10-8 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 6-[4-[(1',3'-dihydro-1',3',3'-trimethylspiro[2H-1-benzopyran-2,2'-(2H)indol]-6-yl)carbonyl]phenoxy]hexyl ester (9CI) (CA INDEX NAME)

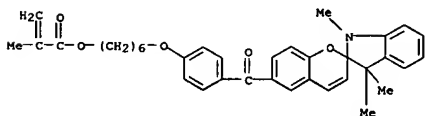
L5 ANSWER 18 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)



IT 219560-42-6P  
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (preparation of polymer incorporating spirobenzopyran photochromic dye)  
 RN 219560-42-6 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 6-[4-[(1',3'-dihydro-1',3',3'-trimethylspiro[2H-1-benzopyran-2,2'-(2H)indol]-6-yl)carbonyl]phenoxy]hexyl 2-methyl-2-propenoate and ethylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 219560-10-8  
 CMF C36 H39 N O5



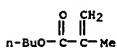
CM 2

CRN 100-42-5  
 CMF C8 H8

H<sub>2</sub>C=CH-Ph

CM 3

CRN 97-88-1  
 CMF C8 H14 O2



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

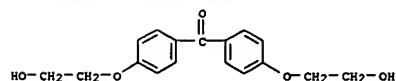
L5 ANSWER 18 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1998:508859 CAPLUS  
 DN 129:154769  
 TI Pre-dyes, mutable dye compositions, and methods of developing a color  
 IN Nohr, Ronald Sinclair; McDonald, John Gavin  
 PA Kimberly-Clark Corporation, USA  
 SO U.S., 35 pp., Cont.-in-part of U.S. Ser. No. 463,187, abandoned.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5786432	A	19980728	US 1996-649754	19960529
CA 2219450	AA	19961212	CA 1996-2219450	19960605
WO 9639646	A1	19961212	WO 1996-US8887	19960605
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
AU 9663786	A1	19961224	AU 1996-63786	19960605
ZA 9604667	A	19970107	ZA 1996-4667	19960605
EP 830638	A1	19980325	EP 1996-923216	19960605
EP 830638	B1	20000823		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9608367	A	19980818	BR 1996-8367	19960605
US 5837429	A	19981117	US 1996-659497	19960605
AT 195815	E	20000915	AT 1996-923216	19960605
ES 2148776	T3	20001016	ES 1996-923216	19960605
RU 2170943	C2	20010720	RU 1998-100245	19960605
JP 200151524	T2	20010918	JP 1997-501352	19960605
US 6063551	A	20000516	US 1998-192628	19981116
PRAI US 1995-463187	B2	19950605		
US 1996-649754	A	19960529		
US 1996-659497	A1	19960605		
WO 1996-US8887	W	19960605		

OS MARPAT 129:154769  
 AB One embodiment of the present invention is a method and composition comprising  
 a novel pre-dye mol. that is colorless and stable to ordinary light. The pre-dye mol. is capable of forming a color when exposed to certain wavelengths of electromagnetic radiation. A second embodiment of the present invention is a method of converting a conventional leuco dye to a colored composition by exposing the leuco dye admixed with a radiation transorber to certain wavelengths of electromagnetic radiation.  
 IT 47225-92-3  
 RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
 (reaction in preparing leuco dye for developing color upon UV irradiation)  
 RN 47225-92-3 CAPLUS  
 CN Methanone, bis[4-(2-hydroxyethoxy)phenyl]- (9CI) (CA INDEX NAME)

L5 ANSWER 19 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

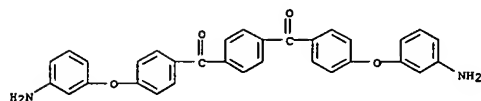


RE.CNT 1073 THERE ARE 1073 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 20 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1998:247584 CAPLUS  
 DN 128:295307  
 TI Azobenzene modified poly(aryl ether ketone amide)s. 2. Photo- and thermo-responsive behavior in dilute solution  
 AU Beattie, Margaret S.; Jackson, Christian; Jaycox, Gary D.  
 CS Experimental Station, Central Res. and Development, E. I. Du Pont de Nemours and Co., Wilmington, DE, 19880-0328, USA  
 SO Polymer (1998), 39(12), 2597-2605  
 CODEN: POLMAG; ISSN: 0032-3861  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 AB A number of azobenzene modified poly(aryl ether ketone amide)s with differing backbone geometries were evaluated for their photo- and thermo-regulated behavior in dilute solution. Photoinduced trans → cis isomerization reactions were carried out by irradiating the polymer samples with UV light at 370-400 nm. Photostationary state compns. achieved under these conditions typically consisted of .apprx.70% of the higher energy cis isomer distributed along the polymer main chain. Reverse cis → trans isomerization of the backbone azobenzene moieties was triggered by either photochem. or thermal means and was monitored by optical absorbance and 1H-NMR. Thermally induced cis → trans return in each of the polymers obeyed the first-order rate law. Activation energies, calculated for the dark isomerization reaction were .apprx.21 kcal/mol. These values were not dependent on the overall structure or mol. weight of the polymer backbone and were nearly identical to those determined for several lower weight model compds. Calculated half-lives for the isomerization of cis-azobenzene linkages buried in the polymer backbone ranged from 1 day near room temperature to about 1 h at 60°. Data gleaned from SEC expts. suggested that polymers endowed with conformationally restricted geometries underwent a two-fold reduction in hydrodynamic radius in response to UV light exposure. Photo-contractions in more flexible polymer samples appeared to be less dramatic, consistent with mol. modeling and dilute solution viscosity measurements.  
 IT 206271-92-3 206271-93-4 206271-94-5  
 RL: FRP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
 (photo- and thermo-initiated cis-trans isomerization in azo group-containing polyamide-polyketones in dilute solution)  
 RN 206271-92-3 CAPLUS  
 CN 1,4-Benzenedicarbonyl dichloride, polymer with 4,4'-(1E)-azobis(benzoyl chloride) and 1,4-phenylenebis[[(3-aminophenoxy)phenyl]methanone] (9CI) (CA INDEX NAME)

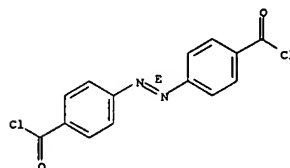
CH 1  
 CRN 110471-13-1  
 CMF C32 H24 N2 O4

L5 ANSWER 20 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

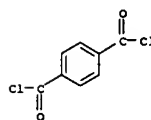


CH 2  
 CRN 78752-50-8  
 CMF C14 H8 Cl2 N2 O2

Double bond geometry as shown.



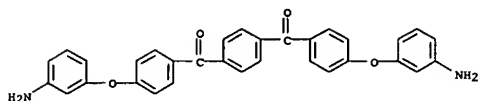
CH 3  
 CRN 100-20-9  
 CMF C8 H4 Cl2 O2



RN 206271-93-4 CAPLUS  
 CN Benzoyl chloride, 4,4'-(1E)-azobis-, polymer with 1,4-phenylenebis[[(3-aminophenoxy)phenyl]methanone] (9CI) (CA INDEX NAME)

CH 1  
 CRN 110471-13-1  
 CMF C32 H24 N2 O4

L5 ANSWER 20 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

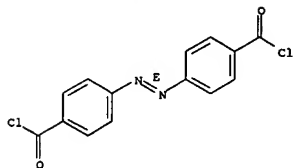


CM 2

CRN 78752-50-8

CMF C14 H8 C12 N2 O2

Double bond geometry as shown.

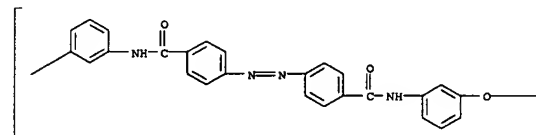


RN 206271-94-5 CAPLUS

CN

Poly(oxy-1,4-phenylenecarbonyl-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,3-phenylenelaminocarbonyl-1,4-phenyleneazo-1,4-phenylenecarbonylimino-1,3-phenylene), (E)- (9CI) (CA INDEX NAME)

PAGE 1-A

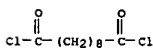


L5 ANSWER 20 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

CM 3

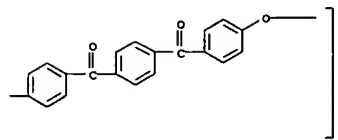
CRN 111-19-3

CMF C10 H16 C12 O2

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 20 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B



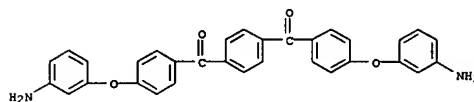
RN 206271-98-9 CAPLUS

Decanedioyl dichloride, polymer with 4,4'-(E)-azobis[benzoyl chloride] and 1,4-phenylenebis[(3-aminophenoxy)phenyl]methanone (9CI) (CA INDEX NAME)

CM 1

CRN 110471-13-1

CMF C32 H24 N2 O4

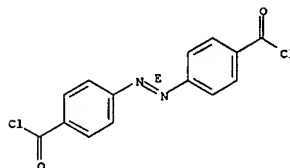


CM 2

CRN 78752-50-8

CMF C14 H8 C12 N2 O2

Double bond geometry as shown.



L5 ANSWER 21 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:784042 CAPLUS

DN 128:108398

TI Thermal recording material with improved color formation and recorded-image stability.

IN Furukawa, Hiroyuki; Inazu, Naoko; Tsuchida, Tetsuo

PA Oji Paper Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JPOKAF

DT Patent

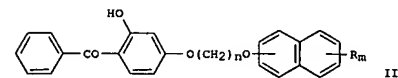
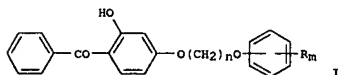
LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09314997	A2	19971209	JP 1996-133755	19960528
JP 1996-133755		19960528		
JP 1996-133755		19960528		

OS MARPAT 128:108398

GI



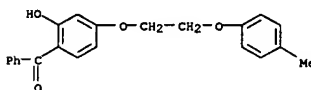
AB The material comprises a recording layer containing a colorless or light-colored basic dye and a color developer on a support, in which 21 benzoylhydroxyphenoxyalkane I and/or II (R = C1-4 alkyl, C1-4 alkoxy, halo; m = 0-3; n = 1-6) are contained. The material, which may use di-Ph sulfone as the developer, shows improved color formation, less reduced whiteness at high temps., and improved recorded-image stability.

IT 201218-17-9 201218-18-0 201218-19-1

RL: MOA (Modifier or additive use); USES (Uses)  
(thermal printing material containing basic dye and benzoylhydroxyphenoxyalkane with improved light and heat resistance)

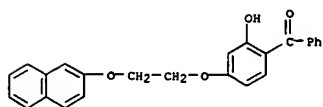
RN 201218-17-9 CAPLUS

CN Methanone, [2-hydroxy-4-{2-(4-methylphenoxy)ethoxy}phenyl]phenyl- (9CI) (CA INDEX NAME)

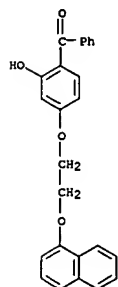


RN 201218-18-0 CAPLUS

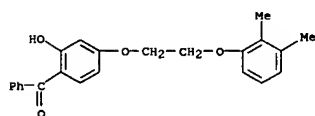
L5 ANSWER 21 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CN Methanone, [2-hydroxy-4-(2-(2-naphthalenyloxy)ethoxy)phenyl]phenyl- (9CI)  
 (CA INDEX NAME)



RN 201218-19-1 CAPLUS  
 CN Methanone, [2-hydroxy-4-(2-(1-naphthalenyloxy)ethoxy)phenyl]phenyl- (9CI)  
 (CA INDEX NAME)



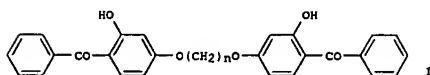
RN 201218-20-4 CAPLUS  
 CN Methanone, [4-[2-(2,3-dimethylphenoxy)ethoxy]-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)



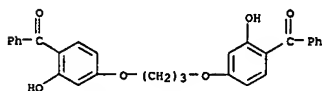
RN 201218-21-5 CAPLUS

L5 ANSWER 22 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1997:784041 CAPLUS  
 DN 128:108490  
 TI Thermal recording material with improved color formation and recorded image stability.  
 IN Furukawa, Hiroyuki; Inazu, Naoko; Tsuchida, Tetsuo  
 PA Oji Paper Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKOXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09314996	A2	19971209	JP 1996-133754	19960528
PRAI JP 1996-133754		19960528		
OS MARPAT 128:108490				
GI				

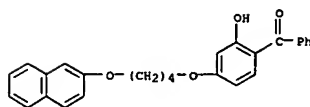


AB The material has a recording layer containing a colorless or light-colored basic dye and a color developer on a support, in which 21 bisbenzoylhydroxyphenoxymethane I (n = 1-8) are contained. The material, which may contain di-Ph sulfones as the color developer, shows improved color formation, less reduced whiteness at high temps., and improved recorded image stability.  
 IT 23421-21-8, 1,3-Bis(4-benzoyl-3-hydroxyphenoxy)propane  
 23911-80-0, 1,4-Bis(4-benzoyl-3-hydroxyphenoxy)butane  
 43221-33-6  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (thermal printing material containing basic dye and bisbenzoylhydroxyphenylalkanes with heat and light resistance)  
 RN 23421-21-8 CAPLUS  
 CN Methanone, [1,3-propanediylbis[oxy(2-hydroxy-4,1-phenylene)]]bis[phenyl- (9CI) (CA INDEX NAME)]

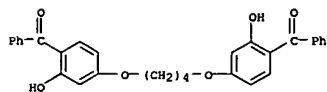


RN 23911-80-0 CAPLUS  
 CN Methanone, [1,4-butanediylbis[oxy(2-hydroxy-4,1-phenylene)]]bis[phenyl- (9CI) (CA INDEX NAME)]

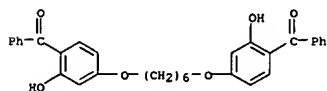
L5 ANSWER 21 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CN Methanone, [2-hydroxy-4-(4-(2-naphthalenyloxy)butoxy)phenyl]phenyl- (9CI)  
 (CA INDEX NAME)



L5 ANSWER 22 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 43221-33-6 CAPLUS  
 CN Methanone, [1,6-hexanediylbis[oxy(2-hydroxy-4,1-phenylene)]]bis[phenyl- (9CI) (CA INDEX NAME)]



L5 ANSWER 23 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:577063 CAPLUS

DN 125:208516

TI Ink-jet recording sheet containing superfine inorganic pigment particles and cationic UV-absorbing polymers

IN Matsushita, Toshihiko

PA Mitsubishi Paper Mills Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JOKXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08174990	A2	19960709	JP 1994-322597	19941226
JP 1994-322597		19941226		

AB The sheet comprises a support and an ink-receptive layer, which mainly contains superfine particles of inorg. pigment and a UV-absorbing cationic polymer composed of a vinyl compound having quaternary ammonium base and

a vinyl compound having a structural unit capable of absorbing UV radiation.

The sheet shows good ink receptivity and the images recorded thereon have high d. and are resistant to water and light.

IT 181258-75-3P

RL: DEV (Device component use); MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(ink-jet recording sheet containing superfine inorg. pigment

particles and cationic UV-absorbing polymers)

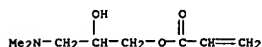
RN 181258-75-3 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(4-benzoyl-3-hydroxyphenoxy)ethyl ester, polymer with 3-(dimethylamino)-2-hydroxypropyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 142755-62-2

CMF C8 H15 N O3



CM 2

CRN 16613-04-0

CMF C19 H18 O5

L5 ANSWER 24 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:446913 CAPLUS

DN 125:890300

TI Dyeing without water

AU Knittel, Dierk; Schollmeyer, Eckhard

CS Deutsches Textilforschungszentrum, Nord-West e.V., Krefeld, Germany

SO Book of Papers - International Conference &amp; Exhibition, AATCC (1995)

86-91

CODEN: BPIAEQ; ISSN: 0892-2713

PB American Association of Textile Chemists and Colorists

DT Journal

LA English

AB A new dyeing process for dyeing synthetic fibers and fabrics is

described. The use of disperse dyes in supercrit. carbon dioxide as a dyeing medium completely avoids water pollution and the need for drying. Laboratory

results showing excellent levelness and fastnesses in the dyeing of poly(ethylene terephthalate) and other synthetic materials, e.g., Kevlar, Nomex, PPS

and PEEK, are described. Other potential uses of supercrit. fluids in the treatment of textiles are discussed.

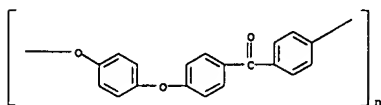
IT 31694-16-3, PEEK

RL: PEP (Physical, engineering or chemical process); PROC (Process) (fiber; dyeing synthetic fibers and fabrics without water using

disperse dyes in supercrit. carbon dioxide)

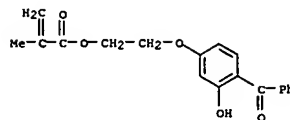
RN 31694-16-3 CAPLUS

CN Poly(oxy-1,4-phenyleneoxy-1,4-phenylenecarbonyl-1,4-phenylene) (9CI) (CA INDEX NAME)



L5 ANSWER 23 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:87516 CAPLUS

DN 124:274410

TI Liquid toner composition from soluble polymeric dispersants with reactive groups

IN Rao, S. Prabhakara; Mikelsons, Valdis

PA Minnesota Mining and Manufacturing Co., USA

SO U.S., 10 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5482809	A	19960109	US 1994-260696	19940616
US 1994-260696		19940616		

AB A liquid toner composition for use in electrog. imaging comprises a non-aqueous

solvent and a soluble dispersant made from thermodynamically compatible polymers containing functional groups with good adsorption properties for cyan, magenta, yellow, and black pigments. The invention also describes the incorporation of reactive functional groups that crosslink on heat treatment to improve modulus and scratch resistance.

IT 174672-75-4P 174672-76-5P 174672-77-6P

174672-78-7P 174672-83-4P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(liquid electrostatog. developers containing organic pigments and)

RN 174672-75-4 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with

2-(4-benzoyl-3-hydroxyphenoxy)-1-

[(4-benzoyl-3-hydroxyphenoxy)methyl]ethyl 2-propenoate, dodecyl

2-methyl-2-propenoate, ethenylmethylbenzene, (8-hydroxy-5-

quinoliny)l)methyl 2-methyl-2-propenoate, (1-methyl-1,2-

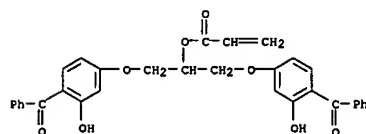
ethanediy)l)bis(oxy(methyl-2,1-ethanediy)l) di-2-propenoate and

exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 103637-50-9

CMF C32 H26 O8



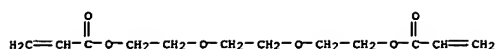
CM 2

CRN 42978-66-5

CMF C15 H24 O6

CCI IDS

L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



3 (D1-Me)

CM 3

 CRN 25013-15-4  
 CMF C9 H10  
 CCI IDS

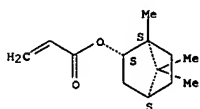

D1-Me

D1-CH=CH2

CM 4

 CRN 5888-33-5  
 CMF C13 H20 O2

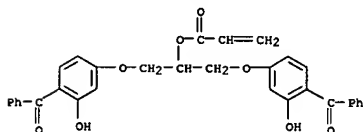
Relative stereochemistry.



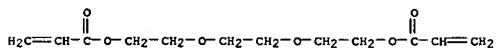
CM 5

 CRN 3327-19-3  
 CMF C14 H13 N O3

L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



CM 2

 CRN 42978-66-5  
 CMF C15 H24 O6  
 CCI IDS


3 (D1-Me)

CM 3

 CRN 25013-15-4  
 CMF C9 H10  
 CCI IDS


D1-Me

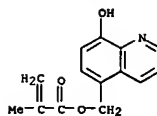
D1-CH=CH2

CM 4

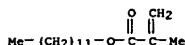
 CRN 5888-33-5  
 CMF C13 H20 O2

Relative stereochemistry.

L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



CM 6

 CRN 142-90-5  
 CMF C16 H30 O2


CM 7

 CRN 79-41-4  
 CMF C4 H6 O2

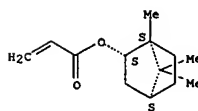
 RN 174672-76-5 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with

 2-(4-benzoyl-3-hydroxyphenoxy)-1-[(4-benzoyl-3-hydroxyphenoxy)methyl]ethyl  
 2-propenoate, ethenylmethylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate,  
 (8-hydroxy-5-quinoliny)methyl 2-methyl-2-propenoate, (1-methyl-1,2-  
 ethanediyl)bis[oxymethyl-2,1-ethanediyl] di-2-propenoate and  
 exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate (9CI) (CA INDEX  
 NAME)

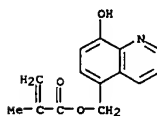
CM 1

 CRN 103637-50-9  
 CMF C32 H26 O8

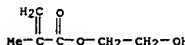
L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



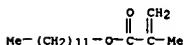
CM 5

 CRN 3327-19-3  
 CMF C14 H13 N O3


CM 6

 CRN 868-77-9  
 CMF C6 H10 O3


CM 7

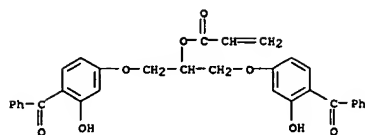
 CRN 142-90-5  
 CMF C16 H30 O2

 RN 174672-77-6 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with

 2-(4-benzoyl-3-hydroxyphenoxy)-1-[(4-benzoyl-3-hydroxyphenoxy)methyl]ethyl  
 2-propenoate, ethenyl acetate, ethenylmethylbenzene, (8-hydroxy-5-  
 quinoliny)methyl 2-methyl-2-propenoate, (1-methyl-1,2-  
 ethanediyl)bis[oxymethyl-2,1-ethanediyl] di-2-propenoate and  
 exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate (9CI) (CA INDEX

L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

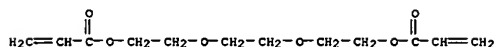
CM 1

CRN 103637-50-9  
CMF C32 H26 O8



CM 2

CRN 42978-66-5  
CMF C15 H24 O6  
CCI IDS



3 ( D1-Me )

CM 3

CRN 25013-15-4  
CMF C9 H10  
CCI IDS



D1-Me

D1-CH=CH2

L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

AcO-CH=CH2

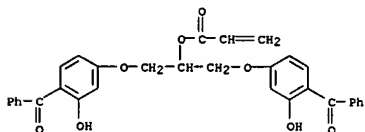
RN 174672-78-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with

2-(4-benzoyl-3-hydroxyphenoxy)-1-[(4-benzoyl-3-hydroxyphenoxy)methyl]ethyl 2-propenoate, ethenylmethylbenzene, [8-hydroxy-5-quinolinyl]methyl 2-methyl-2-propenoate, (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] di-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate (9CI) (CA INDEX NAME)

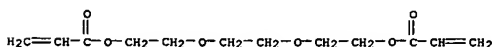
CM 1

CRN 103637-50-9  
CMF C32 H26 O8



CM 2

CRN 42978-66-5  
CMF C15 H24 O6  
CCI IDS



3 ( D1-Me )

CM 3

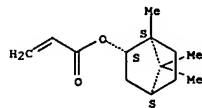
CRN 25013-15-4  
CMF C9 H10  
CCI IDS

L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

CM 4

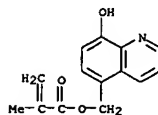
CRN 5888-33-5  
CMF C13 H20 O2

Relative stereochemistry.



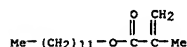
CM 5

CRN 3327-19-3  
CMF C14 H13 N O3



CM 6

CRN 142-90-5  
CMF C16 H30 O2



CM 7

CRN 108-05-4  
CMF C4 H6 O2

L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



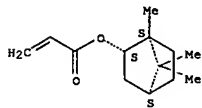
D1-Me

D1-CH=CH2

CM 4

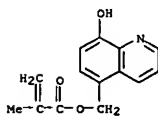
CRN 5888-33-5  
CMF C13 H20 O2

Relative stereochemistry.



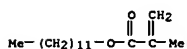
CM 5

CRN 3327-19-3  
CMF C14 H13 N O3



CM 6

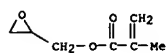
CRN 142-90-5  
CMF C16 H30 O2





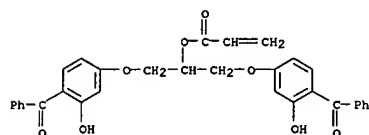
L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

CM 7

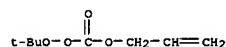
CRN 106-91-2  
CMF C7 H10 O3RN 174672-83-4 CAPLUS  
CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with

2-[(4-benzoyl-3-hydroxyphenoxy)-1-[(4-benzoyl-3-hydroxyphenoxy)methyl]ethyl 2-propenoate, OO-[(1,1-dimethylethyl) O-2-propenyl carbonoperoxoate, ethenylmethylbenzene, (8-hydroxy-5-quinolyl)methyl 2-methyl-2-propenoate, (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] di-2-propenoate and exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

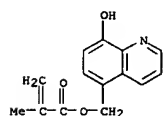
CRN 103637-50-9  
CMF C32 H26 O8

CM 2

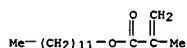
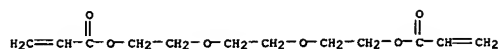
CRN 65700-08-5  
CMF C8 H14 O4

CM 3

CRN 42978-66-5

L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
CMF C14 H13 N O3

CM 7

CRN 142-90-5  
CMF C16 H30 O2L5 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
CMF C15 H24 O6  
CCI IDS

3 { D1-Me }

CM 4

CRN 25013-15-4  
CMF C9 H10  
CCI IDS

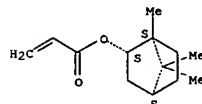
D1-Me

D1-CH=CH2

CM 5

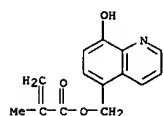
CRN 5889-33-5  
CMF C13 H20 O2

Relative stereochemistry.

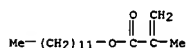


CM 6

CRN 3327-19-3

L5 ANSWER 26 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
CMF C14 H13 N O3

CM 7

CRN 142-90-5  
CMF C16 H30 O2

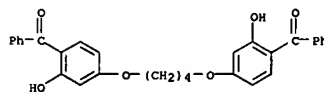
L5 ANSWER 26 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 1995:501361 CAPLUS  
DN 122:242216  
TI Dyeing polyester fibers or their blends with other fibers with cationic dyes for improved lightfastness  
IN Shimada, Masakazu; Uchida, Shigeji  
PA Nikka Chemical Ind Co Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKOXAF  
DT Patent  
LA Japanese  
FAN. CMF 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 07018585	A2	19950120	JP 1993-161649	19930630
PRAI JP 1993-161649		19930630		
OS MARPAT 122:242216				

AB In the title process, polyester fibers or their blends with other fibers are dyed in a bath containing cationic dyes and heated in the bath for 5-30 min at 120-140° after adding aqueous dispersions containing benzotriazole compds., benzophenone compds., and/or triazine compds. with specified structures as light stabilizers to the bath. A polyester plush fabric for automobile seats was dyed in a bath containing C.I. Disperse Yellow 42 0.21, C.I. Disperse Red 302 0.08, C.I. Disperse Violet 57 0.07, C.I. Disperse Blue 60 0.11, C.I. Basic Yellow 67 0.11, C.I. Basic Red 29 0.15, C.I. Basic Blue 54 0.40% (on fiber) for 25 min at 130° and heated in the bath containing 2% (on fiber) 2-[2'-hydroxy-3'-(3",4",5",6"-tetrahydrophthalimidomethyl)-5'-methylphenyl]benzotriazole for 5 min at 130° to give a gray fabric with lightfastness rating (JIS L-0804-74) 4 after exposure to light for 400 h in a fadeometer.

IT 23911-80-0  
RL: MOA (Modifier or additive use); USES (Uses) (light stabilizer; dyeing polyester fibers or their blends with other fibers with cationic dyes for improved lightfastness)

RN 23911-80-0 CAPLUS  
CN Methanone, [1,4-butanediylbis[oxy(2-hydroxy-4,1-phenylene)]]bis[phenyl- (9CI) (CA INDEX NAME)]



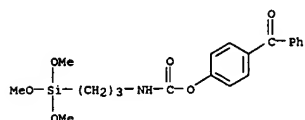
L5 ANSWER 27 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1995:485714 CAPLUS  
 DN 123:9687  
 TI Preparation of silane compounds for dyes and coupling agents  
 IN Yamamoto, Naoki; Nakada, Akira; Ishita, Hitoshi; Watanabe, Hiroyuki  
 PA Mitsubishi Rayon Co, Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07025884	A2	19950127	JP 1993-195594	19930714
PRAI	JP 1993-195594		19930714		
OS	MARPAT 123:9687				

AB PhCORIOCONHR2SiR3n(OR4)3-n (R1-2 = C1-10 hydrocarbylene; R3 = C1-3 hydrocarbyl; R4 = H, C1-10 hydrocarbyl; n = 0-2) are prepared as dyes and coupling agents (no data). A mixture of 4-hydroxybenzophenone, 3-(trimethoxysilylpropyl) isocyanate, and DBTDL in C6H6 was treated at 50° for 40 h to give PhCOC6H4OCNHC3H6Si(OMe)3.

IT 163073-63-02  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (preparation of silanes as dyes and coupling agents from benzoyl-containing compds. and alkoxysilyl isocyanate)

RN 163073-63-0 CAPLUS  
 CN Carbamic acid, [3-(trimethoxysilyl)propyl]-, 4-benzoylphenyl ester (9CI) (CA INDEX NAME)



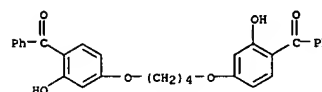
L5 ANSWER 28 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1995:118660 CAPLUS  
 DN 122:83616  
 TI Application of light stabilizers to polyester fibers during dyeing  
 IN Uchida, Shigeji; Shimada, Masakazu  
 PA Hi Kakagaku Kk, Japan  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06192972	A2	19940712	JP 1992-347028	19921225
PRAI	JP 1992-347028	B2	20000911		
OS	MARPAT 123:9687				

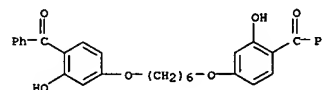
AB A light stabilizer comprising 1,4-bis(4-benzoyl-3-hydroxyphenoxy)butane (I) or 1,6-bis(4-benzoyl-3-hydroxyphenoxy)hexane is applied to polyester fibers during dyeing or printing. A polyester fabric dyed gray in a bath containing C.I. Disperse Yellow 42, C.I. Disperse Red 302, C.I. Disperse Violet 57, C.I. Disperse Blue 60, C.I. Basic Yellow 67, C.I. Basic Red 29, C.I. Basic Blue 54, and I showed better light resistance than a fabric containing no I.

IT 23911-80-0, 1,4-Bis(4-benzoyl-3-hydroxyphenoxy)butane  
 43221-33-6  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (light stabilizer; polyester fabrics treated with dye bath containing)

RN 23911-80-0 CAPLUS  
 CN Methanone, [1,4-butanediylbis[oxy(2-hydroxy-4,1-phenylene)]]bis[phenyl- (9CI) (CA INDEX NAME)]



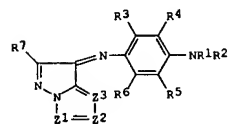
RN 43221-33-6 CAPLUS  
 CN Methanone, [1,6-hexanediylbis[oxy(2-hydroxy-4,1-phenylene)]]bis[phenyl- (9CI) (CA INDEX NAME)]



L5 ANSWER 29 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1994:56680 CAPLUS  
 DN 120:56680  
 TI Pyrazolozazole azomethine dyes and thermal transfer materials containing them  
 IN Mikoshiba, Takashi; Koita, Tomoyoshi  
 PA Fujii Photo Film Co Ltd, Japan  
 SO Jpn. Kokai Tokkyo Koho, 29 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05255604	A2	19931005	JP 1992-89338	19920316
PRAI	JP 1992-89338		19920316		
OS	MARPAT 120:56680				

GI



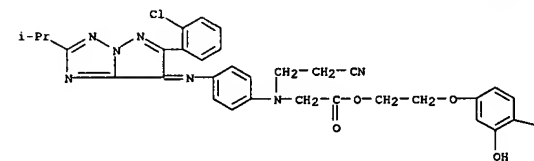
AB The dyes, providing thermal-transfer images with good lightfastness, have the general formula I [Z1-Z3 = CR8, N; R1, R2 = CR9R10CR11R12CN, CR9R10CR11R12SO2R13, CR9R10COR13; R3-R8 = H, nonmetallic substituent; R9-R12 = H, substituent; R13 = alkyl, aryl, heterocyclyl, NR14R15, OR16; R14-R16 = alkyl, aryl, heterocyclyl; some of the R's may be bonded together to form rings]. Typically, I (R1 = R2 = CH2CH2CN; R3-R6 = H; R7 = 2-ClC6H4; Z1 = Z3 = N; Z2 = CCHMe2), λmax 513 nm, was prepared in 4 steps starting from PhNHCH2CH2CN.

IT 152194-59-7  
 RL: USES (Uses)  
 (dye, lightfast, for thermal-transfer printing)

RN 152194-59-7 CAPLUS  
 CN Glycine, N-[4-{6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene}aminophenyl]-N-(2-cyanoethyl)-, 2-(4-benzoyl-3-hydroxyphenoxy)ethyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 29 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-A



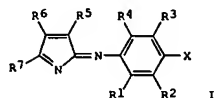
PAGE 1-B



L5 ANSWER 30 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1994:32874 CAPLUS  
 DN 120:32874  
 TI Lightfast pyrrole azomethine dyes and thermal-transfer materials using them  
 IN Mikoshiba, Takashi; Sato, Kozo; Matsuoka, Mitsuyuki  
 PA Fuji Photo Film Co Ltd, Japan  
 SO Jpn. Kokai Tokkyo Koho, 38 pp.  
 CODEN: JKOXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05202305	A2	19930810	JP 1992-197513	19920702
JP 2748210	B2	19980506		
JP 1991-294784	A1	19911016		
MARPAT 120:32874				

GI

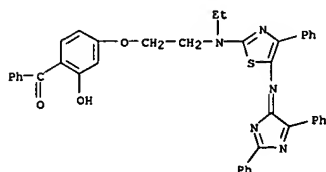


AB The dyes have the general formula I (R1-R7 = H, nonmetallic substituent; X = OH, NR8R9; R8, R9 = H, alkyl, aryl, heterocyclic group; some of the R's may be combined to form rings). I (R1-R3 = H, R4 = Me, R5 = CN, R6 = CO2Et, R7 = SC12H25-n, X = NEtCH2CH2NHSO2Me) was prepared in 4 steps from Et cyanoacetate, S, dodecyl bromide, and a phenylenediamine derivative and used for thermal-transfer recording inks.  
 IT 151796-97-3  
 RL: USES (Uses)  
 (dye, for thermal-transfer recording)  
 RN 151796-97-3 CAPLUS  
 CN 2H-Pyrrole-4-carbonitrile, 2-[[4-[[2-(4-benzoyl-3-hydroxyphenoxy)ethyl]ethylamino]phenyl]imino]-5-phenyl-3-(2-thienyl)-(9CI) (CA INDEX NAME)

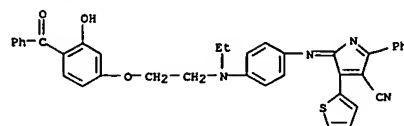
L5 ANSWER 31 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1993:659625 CAPLUS  
 DN 119:259625  
 TI Dye-providing material for thermal transfer recording  
 IN Mikoshiba, Takashi; Kubodera, Seiichi  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 21 pp.  
 CODEN: JKOXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04338592	A2	19921125	JP 1991-204994	19910514
JP 1991-204994		19910514		

AB In the title dye-providing material comprises on its support a dye-providing layer containing a thermally transferable dye I [Q = moiety required for the dye to have absorption at visible and/or IR regions; R1 = H, nonmetallic substituent; R2,3 = H, alkyl, aryl, heterocyclyl; R2 and R3 may form a ring structure). Sharp and stable dye images are obtained.  
 IT 150512-81-5  
 RL: USES (Uses)  
 (dye, thermal transfer recording material containing)  
 RN 150512-81-5 CAPLUS  
 CN Methanone, (4-[2-[[5-[(2,5-diphenyl-4H-imidazol-4-ylidene)amino]-4-phenyl-2-thiazolyl]ethylamino]ethoxy]-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)



L5 ANSWER 30 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



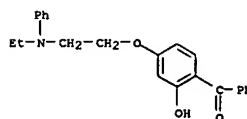
L5 ANSWER 32 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1993:202198 CAPLUS  
 DN 118:202198  
 TI Preparation of pyrazoloazole-azomethine dyes and thermal-transfer dye-providing materials  
 IN Mikoshiba, Takashi; Tanaka, Mitsuaki; Morigaki, Masakazu; Kubodera, Seiichi  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 26 pp.  
 CODEN: JKOXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04229294	A2	19920818	JP 1990-415200	19901227
JP 1990-415200		19901227		

AB Thermal-transfer dye-providing materials possess on a support a dye-providing layer containing the title thermal-transfer dyes I (R1, R2 = H, alkyl, aryl, heterocyclyl; R3-R7 = H, nonmetallic substituent; Z1-Z3 = CR8; N: R8 = H, nonmetallic substituent; R3 and R4, R4 and R1, R1 and R2, R2 and R5, and/or R5 and R6 may be bonded to form a ring; ≥1 of R1-R8 binds to atomic group II or III; R11-R18 = H, nonmetallic substituent). The dye-providing materials give bright and durable color images.  
 IT 146195-07-5P 146195-08-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, in preparation of thermal-transfer pyrazoloazole-azomethine dye)  
 RN 146195-07-5 CAPLUS  
 CN Methanone, (4-[2-(ethylphenylamino)ethoxy]-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)

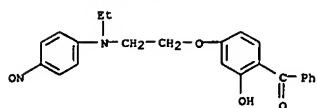
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Thermal-transfer dye-providing materials possess on a support a dye-providing layer containing the title thermal-transfer dyes I (R1, R2 = H, alkyl, aryl, heterocyclyl; R3-R7 = H, nonmetallic substituent; Z1-Z3 = CR8; N: R8 = H, nonmetallic substituent; R3 and R4, R4 and R1, R1 and R2, R2 and R5, and/or R5 and R6 may be bonded to form a ring; ≥1 of R1-R8 binds to atomic group II or III; R11-R18 = H, nonmetallic substituent). The dye-providing materials give bright and durable color images.  
 IT 146195-07-5P 146195-08-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, in preparation of thermal-transfer pyrazoloazole-azomethine dye)  
 RN 146195-07-5 CAPLUS  
 CN Methanone, (4-[2-(ethylphenylamino)ethoxy]-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)



RN 146195-08-6 CAPLUS  
 CN Methanone, (4-[2-(ethyl(4-nitrosophenyl)amino)ethoxy]-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)

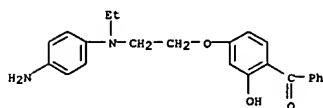
L5 ANSWER 32 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 145821-82-5P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, thermal-transfer printing dye from)  
 RN 145821-82-5 CAPLUS  
 CN 1,5-Naphthalenedisulfonic acid, compd. with [4-[2-[(4-aminophenyl)ethylamino]ethoxy]-2-hydroxyphenyl]phenylmethanone (1:1) (9CI)  
 (CA INDEX NAME)

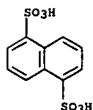
CM 1

CRN 145821-81-4  
 CMF C23 H24 N2 O3



CM 2

CRN 81-04-9  
 CMF C10 H8 O6 S2

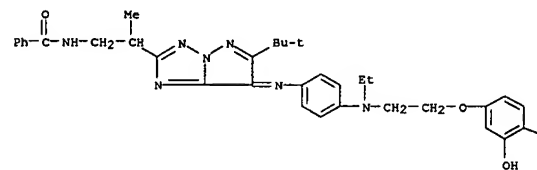


IT 145689-09-4P 145689-19-6P  
 RL: PREP (Preparation)  
 (preparation of, as thermal-transfer printing dye)  
 RN 145689-09-4 CAPLUS

L5 ANSWER 32 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RL: USES (Uses)  
 (thermal-transfer printing dye)  
 RN 146195-09-7 CAPLUS  
 CN Benzamide,  
 N-[2-[7-[[4-[[2-(4-benzoyl-3-hydroxyphenoxy)ethyl]ethylamino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]- (9CI) (CA INDEX NAME)

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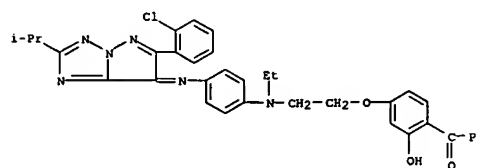
PAGE 1-B



RN 146195-10-0 CAPLUS  
 CN Propanenitrile, 3-[[2-(4-benzoyl-3-hydroxyphenoxy)ethyl]4-[[6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]amino]- (9CI) (CA INDEX NAME)

L5 ANSWER 32 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

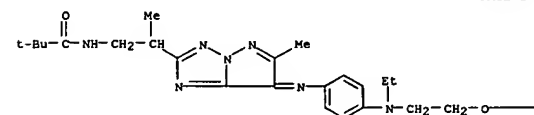
CN Methanone, [4-[2-[[4-[[6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]ethylamino]ethoxy]-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)



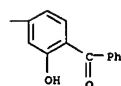
RN 145689-19-6 CAPLUS

CN Propanamide,  
 N-[2-[7-[[4-[[2-(4-benzoyl-3-hydroxyphenoxy)ethyl]ethylamino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)

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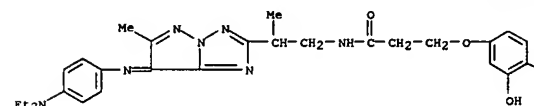


IT 146195-09-7 146195-10-0 146195-12-2  
 146195-13-3 146195-14-4 146195-15-5

L5 ANSWER 32 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 146195-12-2 CAPLUS  
 CN Propanamide, 3-[[2-(4-benzoyl-3-hydroxyphenoxy)ethyl]-N-[2-[7-[[4-(diethylamino)phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]- (9CI) (CA INDEX NAME)

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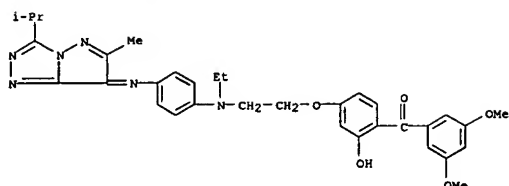


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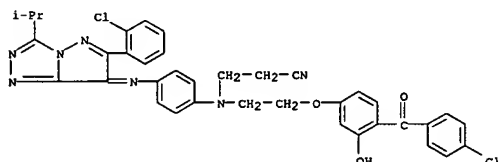


RN 146195-13-3 CAPLUS  
 CN Methanone, (3,5-dimethoxyphenyl)[4-[2-[ethyl[4-[[6-methyl-3-(1-methylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]phenyl]amino]ethoxy]-2-hydroxyphenyl]- (9CI) (CA INDEX NAME)

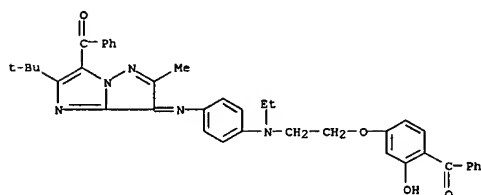
L5 ANSWER 32 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 146195-14-4 CAPLUS  
 CN Propanenitrile, 3-[[2-[4-(4-chlorobenzoyl)-3-hydroxyphenoxy]ethyl][4-[[6-(2-chlorophenyl)-3-(1-methylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]phenyl]amino]- (9CI) (CA INDEX NAME)



RN 146195-15-5 CAPLUS  
 CN Methanone, [4-[2-[[4-[[3-benzoyl-2-(1,1-dimethylethyl)-6-methyl-7H-imidazo[1,2-b]pyrazol-7-ylidene]amino]phenyl]ethylamino]ethoxy]-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)



L5 ANSWER 33 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1993:104786 CAPLUS

DN 118:104786

TI Lightfast pyrazoloazole azomethine dyes

IN Mikoshiba, Takashi; Tanaka, Mitsugi; Morigaki, Masakazu; Kubodera, Seiichi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 34 pp.

CODEN: JPOXXAF

DT Patent

LA Japanese

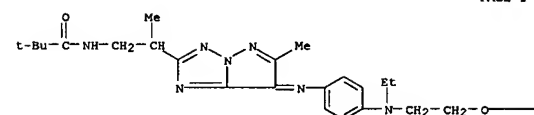
FAN: CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04178646	A2	19920625	JP 1990-305974	19901114
	JP 2964422	B2	19991018		
PRAI	JP 1990-305974		19901114		
OS	MARPAT 118:104786				
GI					

L5 ANSWER 33 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

dimethyl- (9CI) (CA INDEX NAME)

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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The dyes, useful for inks (jet-printing, thermal-transfer, etc.), have the

general formula I (R1, R2 = H, alkyl, aryl, heterocyclyl; R3-R7 = H, nonmetallic substituent; specific pairs of R1 may combine to form fused rings; Z<sub>a</sub>, Z<sub>b</sub>, Z<sub>c</sub> = CR<sub>8</sub>, N; R<sub>8</sub> = H, nonmetallic substituent; ≥1 of R1-R8 contains a phenoxy or N heterocyclic group). II, λ<sub>max</sub> 504 nm, was prepared in 41.8% yield starting from III and p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>N(CH<sub>2</sub>CH<sub>2</sub>CN)CH<sub>2</sub>CH<sub>2</sub>OC<sub>6</sub>H<sub>4</sub>OMe-p tosylate.

IT 145689-09-4P 145689-19-6P

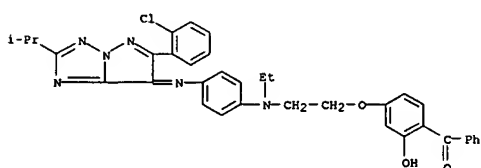
RL: PREP (Preparation)

(dye, lightfast, for inks, manufacture of)

RN 145689-09-4 CAPLUS

CN Methanone, [4-[2-[[4-[[6-(2-chlorophenyl)-2-(1-methylethyl)-7H-

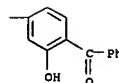
pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]ethylamino]ethoxy]-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)



RN 145689-19-6 CAPLUS

CN Propanamide,

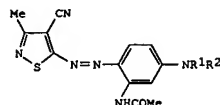
N-[2-[7-[[4-[[2-[4-benzoyl-3-hydroxyphenoxy]ethyl]ethylamino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-2,2-



L5 ANSWER 34 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1992:614706 CAPLUS  
 DN 117:214706  
 TI Arylazaisothiazole-based dye-containing thermal-transfer donors  
 IN Mikoshiba, Takashi; Tanaka, Mitsugi; Morigaki, Masakazu; Kubodera, Seichi  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 32 pp.  
 CODEN: JHOXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04148987	A2	19920521	JP 1990-273573	19901012
JP 1990-273573		19901012		

PI  
 PRAI  
 GI



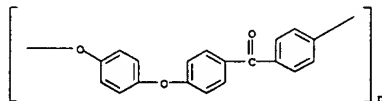
AB Thermal-transfer donors, giving lightfast images contain A(LB)q dyes (A = substituted-5-arylazaisothiazole residue; B = color-fading-preventive group; L = a direct bond or divalent group; q = 1-2). Thus, a donor sheet containing poly(vinyl butyral) and I (R1 = Et, R2 = p-MeOC6H4OCH2CH2-) was placed in contact with an image-receiving sheet and heated by a thermal head to give images having maximum d. 2.8 with d. retention 96% after 1 wk under 12,000-lx fluorescent lamp.  
 IT 144289-49-6  
 RL: USES (Uses)  
 (dyes, lightfast, for thermal-transfer inks)  
 RN 144289-49-6 CAPLUS  
 CN Propanamide,  
 N-[5-[[2-(4-benzoyl-3-hydroxyphenoxy)ethyl]ethylamino]-2-[(4-cyano-3-methyl-5-isothiazolyl)azo]phenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)

L5 ANSWER 35 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1992:428905 CAPLUS  
 DN 117:28905  
 TI Laser markable white pigment compositions  
 IN Williams, Stewart W.  
 PA British Aerospace Public Ltd. Co., UK  
 SO Can. Pat. Appl., 14 pp.  
 CODEN: CPXKXB  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2036765	AA	19910916	CA 1991-2036765	19910220
US 5206280	A	19930427	US 1991-666898	19910308
JP 06093207	A2	19940405	JP 1991-50919	19910315
GB 1990-5872	A	19900315		

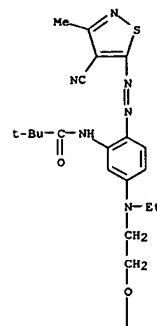
PI  
 PRAI  
 GI

AB Title compns., useful on insulating coverings of elec. wires, contain a first pigment markable by a UV laser (e.g., TiO2, Sb2O3, PEEK, or polyether polysulfone), a second pigment which does not absorb UV light and is white in visible light (e.g., SiO2, MgO, Al2O3, or diamond), and a fluoropolymer carrier which is transparent in UV light. The compns. form thin coatings which cover any darker colorations in the underlying layer and give contrasting markings upon laser irradiation  
 IT 31694-16-3  
 RL: USES (Uses)  
 (pigments, coatings containing, UV laser-markable, for elec. insulators)  
 RN 31694-16-3 CAPLUS  
 CN Poly(oxy-1,4-phenyleneoxy-1,4-phenylenecarbonyl-1,4-phenylene) (9CI) (CA INDEX NAME)

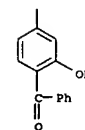


L5 ANSWER 34 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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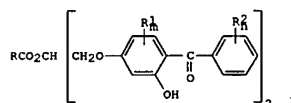


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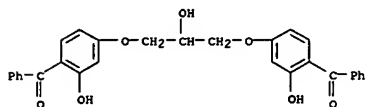
L5 ANSWER 36 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1991:491845 CAPLUS  
 DN 115:91845  
 TI Preparation of 1,3-bis(4-benzoyl-3-hydroxyphenyl)-2-propyl acetate, methacrylate, and benzoate as fastness enhancers for polyester fiber dyes  
 IN Schulz, Joachim; Bartels, Guenter  
 PA Riedel-de Haen A.-G., Germany  
 SO Ger. Offen., 9 pp.  
 CODEN: GWXKXB  
 DT Patent  
 LA German  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3930516	A1	19910321	DE 1989-3930516	19890913
WO 9104243	A1	19910404	WO 1990-EP1493	19900906
W: BR, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
EP 491764	A1	19920101	EP 1990-913388	19900906
EP 491764	B1	19950125		
R: CH, DE, DK, ES, FR, GB, IT, LI				
BR 9007640	A	19920818	BR 1990-7640	19900906
JP 05500663	T2	19930212	JP 1990-512369	19900906
ES 2067758	T3	19950401	ES 1990-913388	19900906
US 5244476	A	19930914	US 1992-838765	19920313
PRAI DE 1989-3930516	A	19890913		
WO 1990-EP1493	W	19900906		
OS MARPAT 115:91845				
GI				

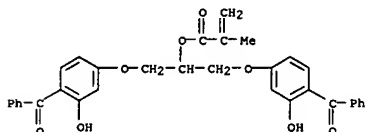


AB The (un)sym. substituted title compds. [I; R = C1-2 alkyl, (un)substituted C1-12 alkyl, C3-8 cycloalkyl, Ph, etc.; R1 = H, C1-6 alkyl; R1 = H, C1-6 alkyl, cyano, F, Cl, Br, CF3; m, n = 0-2] were prepared by esterification of acids RCO2H with the appropriate 1,3-bis(4-benzoyl-3-hydroxyphenoxy)-2-propanols. Thus, a solution containing 1,3-bis(4-benzoyl-3-hydroxyphenoxy)-2-propanol 97, CH2:CMCO2H 103, CF3SO3H 6, hydroquinone 0.2, and hydroquinone mono-Me ether 0.2 g in 1200 mL MePh was heated 3 h at 105-110° to give 86 g title compound I (R = CH2:CM, m = n = 0) which had UV absorption maximum (resp. extinction and extinction coefficient in parentheses) at 287 nm (0.517, 28,570) and at 324 nm (0.333, 18,400). Three I were prepared and their effect on light fastness of polyester yarn dyed by disperse dye mixts. were evaluated by xenotest (DIN 75202).  
 IT 23911-85-5  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (esterification of, by methacrylic acid, in preparation of disperse dye fastness enhancer)

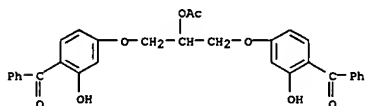
L5 ANSWER 36 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 23911-85-5 CAPLUS  
 CN Methanone, [(2-hydroxy-1,3-propanediyl)bis(oxy(2-hydroxy-4,1-phenylene))]bis(phenyl- (9CI) (CA INDEX NAME)



IT 103637-48-5P 135354-31-3P 135354-32-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as fastness enhancer for polyester fiber dyes)  
 RN 103637-48-5 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-,  
 2-(4-benzoyl-3-hydroxyphenoxy)-1-[(4-benzoyl-3-hydroxyphenoxy)methyl]ethyl ester (9CI) (CA INDEX NAME)



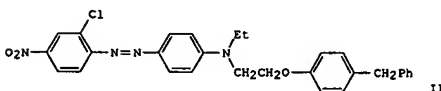
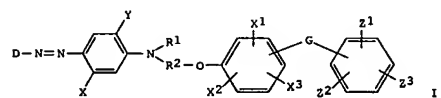
RN 135354-31-3 CAPLUS  
 CN Methanone, [(2-(acetoxy)-1,3-propanediyl)bis(oxy(2-hydroxy-4,1-phenylene))]bis(phenyl- (9CI) (CA INDEX NAME)



RN 135354-32-4 CAPLUS  
 CN Methanone, [(2-(benzoyloxy)-1,3-propanediyl)bis(oxy(2-hydroxy-4,1-phenylene)oxy)]bis(phenyl- (9CI) (CA INDEX NAME)

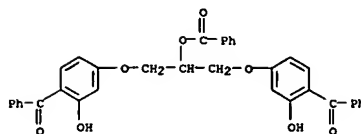
L5 ANSWER 37 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 1990:63332 CAPLUS  
 DN 113:233332  
 TI Disperse monoazo dyes for hydrophobic fibers  
 IN Yamamoto, Jun; Ueda, Yasuyoshi; Omura, Takashi; Yamamoto, Yosuke; Hattori, Hideo; Sekihachi, Junichi  
 PA Sumitomo Chemical Co., Ltd., Japan  
 SO Eur. Pat. Appl., 21 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 363904	A2	19900418	EP 1989-118809	19891010
EP 363904	A3	19901024		
EP 363904	B1	19950405		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 02255866	A2	19901016	JP 1989-208528	19890811
JP 2785365	B2	19980813		
US 5075429	A	19911224	US 1989-419327	19891010
ES 2070876	T3	19950616	ES 1989-118809	19891010
KR 9709393	B1	19970612	KR 1989-14569	19891010
PRAI JP 1988-256772	A	19881011		
OS MARPAT 113:233332				
GI				

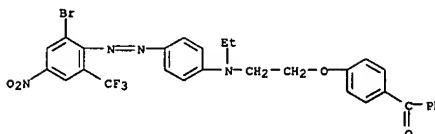


AB The title dyes I [D = (un)substituted heterocyclic or carbocyclic residue;  
 G = carbonyl, carbonyloxy, oxycarbonyl, imino, O, S, CH:N, SO2, NHCO, OSO2, NHCO2, (un)branched C1-6 alkylene, direct bond; R1 = H, C1-6 alkyl, (un)substituted C1-4 alkoxy, C1-4 alkoxy-carbonyl, C1-4 alkyl-carbonyloxy, C1-4 alkoxy-carbonyloxy, Ph, PhO, benzoyloxy, CN, C3-5 alkenyl; R2 = (un)branched C2-4 alkylene (un)substituted by OH groups; X = H, C1-4 alkyl, C1-4 alkoxy, acylamino, halogen, NHCONH2; Q = H, C1-4 alkyl, Ph; X1-X3, Z1-Z3 = H, Cl, Br, C1-4 alkyl, C1-4 alkoxy, C1-4 alkoxy-carbonyl, NO2; Y = H, halogen, C1-4 alkyl, C1-4 alkoxy, C1-4 alkoxy-C1-4 alkyl, C1-4 alkoxy-C1-4 alkoxy; R1 + Y with N and 2 C atoms may form a 5- or 6-membered ring), useful for dyeing or printing of hydrophobic fibers, especially polyester fibers, are prepared Thus, 2-chloro-4-nitroaniline was

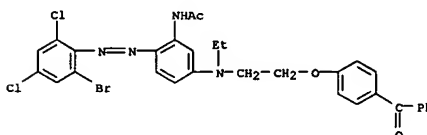
L5 ANSWER 36 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



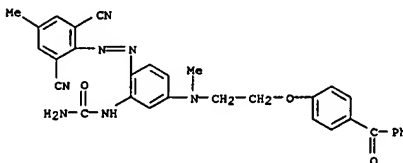
L5 ANSWER 37 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 diazotized and coupled with N-ethyl-N-2-(4-benzoylphenoxy)ethylaniline, forming II,  $\lambda_{max}$  (DMF) 514 nm, which dyed polyester fabrics a fast red shade.  
 IT 130661-67-5P 130661-81-3P 130662-12-3P  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (manufacture of, as disperse dye for hydrophobic fibers)  
 RN 130661-67-5 CAPLUS  
 CN Methanone,  
 [4-[2-[[4-[(2-bromo-4-nitro-6-(trifluoromethyl)phenyl)azo]phenyl]ethylamino]ethoxy]phenyl]phenyl- (9CI) (CA INDEX NAME)



RN 130661-81-3 CAPLUS  
 CN Acetamide, N-[5-[[2-(4-benzoylphenoxy)ethyl]ethylamino]-2-[(2-bromo-4,6-dichlorophenyl)azo]phenyl]- (9CI) (CA INDEX NAME)



RN 130662-12-3 CAPLUS  
 CN Urea, [5-[[2-(4-benzoylphenoxy)ethyl]methylamino]-2-[(2,6-dicyano-4-methylphenyl)azo]phenyl]- (9CI) (CA INDEX NAME)



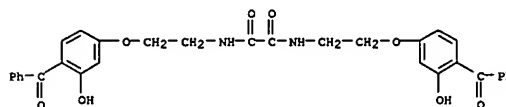
L5 ANSWER 37 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L5 ANSWER 38 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1990:66602 CAPLUS  
 DN 112:66602  
 TI Laminated films for preventing fading of dye images  
 IN Okiyama, Toshiaki  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKKXAF  
 DT Patent  
 LA Japanese

FAN.CNT 1  

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01142634	A2	19890605	JP 1987-300137	19871130
JP 1987-300137		19871130		

 AB The title film, having no light transmittance in the wavelength region <330 nm, is made by melt extrusion coating, on 1 side of a biaxially oriented crystalline PET film having a thickness of 0.0050-0.3 mm and containing a UV absorber 0.2-6 %, of a layer having a thickness of 0.002-0.2 mm containing ≥1 of an ionomer, an ethylene-vinyl acetate copolymer, and an Et acrylate-ethylene copolymer.  
 IT 81148-79-0  
 RL: USES (Uses)  
 (UV absorber, PET films containing, for preventing fading of dye images)  
 RN 81148-79-0 CAPLUS  
 CN Ethanediamide, N,N'-bis[2-(4-benzoyl-3-hydroxyphenoxy)ethyl]- (9CI) (CA INDEX NAME)

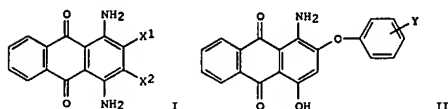


L5 ANSWER 39 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1989:544238 CAPLUS  
 DN 111:144238  
 TI Thermal transfer recording sheet  
 IN Hashimoto, Kyoyasu; Omura, Takashi; Suzuki, Yasuyuki  
 PA Sumitomo Chemical Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKKXAF  
 DT Patent  
 LA Japanese

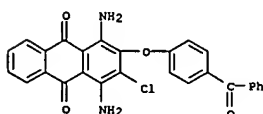
FAN.CNT 1  

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01097689	A2	19890417	JP 1987-255535	19871008
JP 1987-255535		19871008		

 GI



AB Thermal transfer sheet contain sublimable dyes I (X1 = halo, (substituted) phenoxy; X2 = halo) and dyes II (Y = H, halo, OH, CF3, alkyl, alkoxy, aralkyloxy, alkoxyalkoxy, aryloxyalkoxy, acyl, alkyl carbonyloxy, (N-substituted) carbamoyl, alkylsulfonyl, sulfamoyl, alkyl sulfonyloxy, arylsulfonyloxy). These dyes are readily dispersible, transferable by sublimation, and provide images with durability, especially magenta images.  
 Thus, a composition containing 1 part each of I (X1 = OPh, X2 = Cl) and II (Y = p-OH), 6 parts ethylcellulose and solvents was coated on polyester film and used in thermal-transfer printing, to obtain high-d. magenta image that was hardly affected by irradiation with carbon arc lamp for 40 h.  
 IT 122891-37-6  
 RL: USES (Uses)  
 (as sublimable dye, thermal transfer sheet containing)  
 RN 122891-37-6 CAPLUS  
 CN 9,10-Anthracenedione, 1,4-diamino-2-(4-benzoylphenoxy)-3-chloro- (9CI) (CA INDEX NAME)



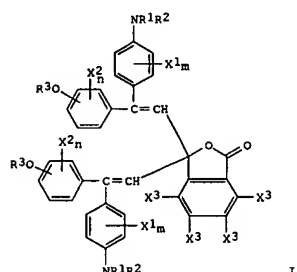
L5 ANSWER 39 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L5 ANSWER 40 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1989:203037 CAPLUS  
 DN 110:203037  
 TI 3,3-Bis(2,2-diphenylvinyl)phthalides as leuco dyes and recording materials containing them  
 IN Fujino, Yoshiharu; Kawai, Hajime; Gendai, Kazuhiko; Tsunemitsu, Katsuhiko  
 PA Yamada Chemical Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKKXAF  
 DT Patent  
 LA Japanese  
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63270672	A2	19881108	JP 1987-105928	19870427
JP 1987-105928		19870427		
MARPAT 110:203037				

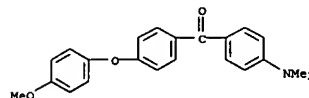
PI  
 PRAI  
 OS  
 GI



AB The title compds. of the formula I (R1 = (un)substituted C5-6 alkyl, (un)substituted benzyl; R2 = (un)substituted C5-6 alkyl, (un)substituted benzyl; C5-6 cycloalkyl, R3 = C9-12 alkyl, C5-7 cycloalkyl, cycloalkyl-containing group, C5-6 alkoxyalkyl, haloalkyl, alkenyl, alkynyl, C5-6 O-containing heterocyclylmethyl, aryl, aralkyl;  
 X1 = C5-6 alkyl, alkoxy, halo; X2 = C5-6 alkyl, alkoxy, halo, OR3; X3 = halo; NR1R2 may be heterocycle; m, n = 0-2) and color-rendering recording materials containing I as color formers are claimed. I are used as leuco dyes for pressure-sensitive, thermal, and elec. discharge recording materials and form black images, which have a strong absorption at 700-1000 nm and are recognized by optical character readers.  
 1-[p-(p-Methoxyphenoxy)phenyl]-1'-(p-dimethylaminophenyl)ethylene, prepared

L5 ANSWER 41 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1985:407165 CAPLUS  
 DN 103:7165  
 TI The effect of polymers having ultraviolet absorptive groups on photofading rate of Acridine Orange N  
 AU Suzuki, Hiromasa; Ishii, Yoshiji; Yamashita, Yuya  
 CS Fac. Eng., Gunma Univ., Kiryu, 376, Japan  
 SO Sen'i Gakkaishi (1985), 41(3), T131-T137  
 CODEN: SENGAS; ISSN: 0037-9875  
 DT Journal  
 LA Japanese  
 AB The photofading of Acridine Orange N [65-61-2] in dioxane-ethanol mixture was studied in the presence of polymers having 2-hydroxybenzophenone (I)-containing group side chains as UV absorptive groups.  
 2-Hydroxy-4-(3-methacryloxy-2-hydroxypropoxy)benzophenone (II) homopolymer (III) [30921-67-6], styrene-II copolymer (IV) [86443-94-9], methyl methacrylate-II copolymer (V) [29929-58-6], and 2-hydroxy-4-methoxybenzophenone (VI) [131-57-7] were used as UV absorbers. The IV copolymer contained 8.9 .apprx. 14.2% I units, and V contained 3.7 .apprx. 7.2% I units, while III contained 100% I units. Photofading of Acridine Orange N in the solns. containing these polymers was in the order IV > III > VI > V. A slight retardation effect was also observed with polystyrene while poly(methylmethacrylate) acted as an accelerator. The differences in the dye protective behaviors for light between IV and V must be associated with the structural features in the main-chain of these polymers. The fading of the dye was more marked with light in the wavelength region of 300 .apprx. 400 nm than in the wavelengths >400 nm, and the retarding action of the I group was remarkably observed with 300 .apprx. 400 nm light. A Stern-Volmer plot showed that I group acted as quenchers in the case of the low concentration of these additives.

L5 ANSWER 40 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 by Grignard reaction of MeI and the corresponding benzophenones, was treated with tetrachlorophthalic anhydride to give I (R1, R2 = Me; 4-OR3 = p-OC6H4OMe, X1, X2 = H; X3 = Cl) (II). A paper was coated with a compn. contg. II, kaolin, Bisphenol A, Zn stearate, and stearamide to form a thermal recording paper, which gave black images having an absorption at 700-1000 nm.  
 IT 120464-46-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (Grignard reaction of, with Me iodide, in preparation of divinylphthalides as leuco dyes for recording materials)  
 RN 120464-46-2 CAPLUS  
 CN Methanone, [4-(dimethylamino)phenyl][4-(4-methoxyphenoxy)phenyl]- (9CI) (CA INDEX NAME)



L5 ANSWER 42 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1985:205341 CAPLUS  
 DN 102:205341  
 TI Ultraviolet absorbers for retarding wool photo-degradation: sulfonated 2-hydroxybenzophenones and 2,2'-dihydroxybenzophenones  
 AU Milligan, Brian; Holt, Leo A.  
 CS Div. Protein Chem., CSIRO, Parkville, 3052, Australia  
 SO Polymer Degradation and Stability (1985), 10(4), 335-52  
 CODEN: PDSTDW; ISSN: 0141-3910  
 DT Journal  
 LA English  
 AB Nineteen sulfonated 2-hydroxybenzophenones and 3 sulfonated 2,2'-dihydroxybenzophenones were prepared and compared with a com. available member of each class of UV absorber as photoprotective agents for wool. Treated fabrics were exposed to a 500 W Hg-vapor, W-filament, phosphor-coated lamp and the extent of phototendering was assessed by measuring braking loads and tear strengths. In general, 2-hydroxybenzophenones with 3-alkyl substituents provide better protection against phototendering than absorbers lacking 3-alkyl substituents. On the basis of effectiveness and ease of synthesis 2,2'-dihydroxy-4,4'-bis(m-sulfobutoxy)benzophenone [96382-45-5] showed the most promise as a photoprotective agent. At the 5% level of application it trebles the lifetime of wool fabric during exposure to sunlight through window glass. It also retarded the phototendering and fading of wool fabrics containing either a red or a blue milling acid dye. 2,2'-Dihydroxybenzophenones were more effective than 2-hydroxybenzophenones.

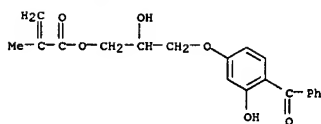
L5 ANSWER 43 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1983:455054 CAPLUS  
 DN 99:55054  
 TI The effect of polymers having ultraviolet absorption groups on photofading  
 AU rate of Acridine Orange N  
 AU Suzuki, Hiromasa; Tanaka, Yoshishige; Ishii, Yoshiji  
 CS Fac. Eng., Gunma Univ., Kiryu, Japan  
 SO Sen'i Gakkaishi (1983), 39(3), T118-T124  
 CODEN: SENGAS; ISSN: 0037-9875  
 DT Journal  
 LA Japanese  
 AB The rate of photofading of Acridine Orange N [65-61-2] in dioxane-EtOH was studied in the presence of polymers containing UV-absorbing groups derived from 2-hydroxybenzophenone (I) [117-99-7], 2,4-dihydroxybenzophenone (II) [131-56-6], and Ph benzoate (III) [93-99-2] and the UV absorber compds. themselves. Photo-Fries-rearranged 4-(benzoyloxy)styrene-styrene copolymer (IV) [76755-67-4] containing I and III units, 2-hydroxy-4-(3-methacryloyloxy-2-hydroxypropoxy)benzophenone-styrene copolymer (V) [86443-94-9], unrearranged IV, I, and II played the role of retarder on the photofading of the dye with the extent of the effects being  $V > II > I > \text{Photo-Fries rearranged IV}$ , while IV and III acted as accelerators.

L5 ANSWER 44 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1983:446047 CAPLUS  
 DN 99:46047  
 TI Pressure-sensitive recording material  
 IN Qualitz, Marion; Krupp, Viktor A.  
 PA Spezial-Papiermaschinenfabrik August Alfred Krupp G.m.b.H. und Co., Fed. Rep. Ger.  
 SO Ger. Offen., 44 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN. CNT 1  

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 3111904	A1	19821104	DE 1981-3111904	19810326
PRAI DE 1981-3111904		19810326		

AB Pressure-sensitive copying sheets or bands giving copies with improved sharpness, color, and stability consist of a unit with a layer containing a known dye precursor in a special binder-plasticizer combination and a unit with a layer containing a dye acceptor. Especially useful as the binder material are synthetic polymers with a mol. weight of 200,000 to 400,000 and a heat resistance to at least 80°. Thus, a paper band was coated on the CF side with a solution containing iso-ProAc 40, MeCOEt 20, poly(vinyl acetate) 30, stilbenyl-naphthaoctriazole 0.5, bis(2-ethylhexyl) isophthalate 4.5, crystal violet lactone 4, and Rhodamine B lactam 14 at 1.5 g/m<sup>2</sup> and then combined with a paper band coated on the CB side with a composition containing a compressor oil (kinematic viscosity at 40° of 1.06 + 10-4 cm<sup>2</sup> s<sup>-1</sup> (±10%)) 3, a compressor oil [kinematic viscosity at 40° of 9.8 + 10-5 m<sup>2</sup> s<sup>-1</sup> (±10%)] 3, paraffin-containing low-pressure polyethylene 50, microwax 20, soft paraffin 10, Na 2,2'-dihydroxy-4,4'-dimethoxybenzophenone-5-sulfonate 5, 2-(2'-hydroxy-3'-tert-butyl-5'-heptyloxyphenyl)benzotriazole 3, pentaerythritol β-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate 2, [2,2'-thiobis(4-tert-hexylphenolato)]cyclohexylaminocobalt(II) 2, and [1-phenyl-3-methyl-4-propoxy pyrazolato(5)]2copper(II) 2 parts at 4 g/m<sup>2</sup>. Upon imaging with a ball-point pen or in a typewriter, photocopyable violet characters with strikingly good sharpness and high brilliance were obtained.  
 IT 1823-18-3  
 RL: USES (Uses)  
 (pressure-sensitive copying paper with dye receptor layers containing)  
 RN 1823-18-3 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 44 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



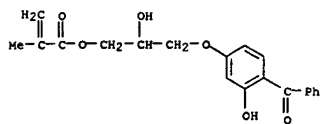
L5 ANSWER 45 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1982:208444 CAPLUS  
 DN 96:208444  
 TI Pressure-sensitive recording material  
 IN Qualitz, Marion; Krupp, Viktor A.  
 PA Spezial-Papiermaschinenfabrik August Alfred Krupp G.m.b.H. und Co., Fed. Rep. Ger.  
 SO Ger. Offen., 35 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 FAN. CNT 2  

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 3009754	A1	19810924	DE 1980-3009754	19800314
DE 3009754	C2	19820708		
EP 36117	A2	19810923	EP 1981-101430	19810227
EP 36117	A3	19811104		
EP 36117	B1	19860205		
AT 17831	E	19860215	AT 1981-101430	19810227
AU 8168078	A1	19810917	AU 1981-68078	19810304
AU 542008	B2	19850131		
US 4379721	A	19830412	US 1981-241523	19810309
DK 8101159	A	19810915	DK 1981-1159	19810313
DK 152185	B	19880208		
DK 152185	C	19880711		
JP 56154085	A2	19811128	JP 1981-35479	19810313
PRAI DE 1980-3009754	A	19800314		
DE 1980-3009806	A	19800314		
EP 1981-101430	A	19810227		

AB Pressure-sensitive copying materials with improved layer stability, light resistance, and heat resistance contain dye acceptor materials consisting of an intimate mixture of a 2-hydroxybenzophenone derivative or an anthraquinone derivative or 4-hydroxybenzanthrone and a substituted benzotriazole in an inert waxy binder. In addition a sterically hindered phenol or a 2-hydroxyphenyl sulfide metal complex or a benzodiazine derivative can also be added. Thus, a typical dye acceptor composition contained compressor oil ISOVG 106 3, compressor oil ISOVG 98 3, a paraffin-containing low-pressure polyethylene 50, a microcryst. wax 20, a soft paraffin 10, Na 2,2'-dihydroxy-4,4'-dimethoxybenzophenone-5-sulfonate 5, 2-(2'-hydroxy-3'-tert-butyl-5'-heptyloxybenzotriazole 3, β-(3,5-di-tert-butyl-4'-hydroxyphenyl)propionic acid ester of pentaerythritol 2, [2,2'-thiobis(4-tert-hexylphenolato)]cyclohexylaminocobalt(II) 2, and bis[1-phenyl-3-methyl-4-propoxy-5-pyrazolato]copper(II) 2 parts.  
 IT 1823-18-3  
 RL: USES (Uses)  
 (pressure-sensitive copying paper with dye acceptor layers containing, for improved stability)  
 RN 1823-18-3 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 45 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



L5 ANSWER 46 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1980:407902 CAPLUS

DN 93:7902

TI Di-2-anthraquinonyl ether tetrasulfonic acid and its use as an oxidizing agent in the Stretford desulfurization process

IN Mita, Ryuichi; Sakai, Katsuya; Kato, Toshio; Higuchi, Chojiro; Murakami, Hisamichi

PA Mitsui Toatsu Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

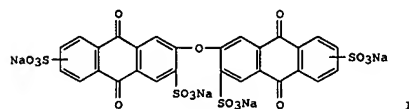
CODEN: JKOXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 54151957	A2	19791129	JP 1978-58879	19780519
	JP 59010655	B4	19840310		
	ZA 7903090	A	19801126	ZA 1979-3090	19790404
PRAI	JP 1978-58879	A	19780519		
GI					



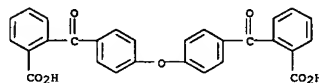
AB A mixture of 23.3 parts 4,4'-bis(2-carboxybenzoyl)diphenyl ether and 10.7 parts Na2SO4 in 100 parts 30% fuming H2SO4 was heated slowly to 160° over 2 h and kept at 160-70° for 12 h to give 49 parts I, having the same solubility as Na 2,7-anthraquinonedisulfonate (II) in aqueous

Na2S2O3. I was as effective as II as an oxidizing agent in the Stretford desulfurization process to oxidize H2S in fuel gases to S.

IT 32568-81-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (cyclization of, by fuming sulfuric acid, anthraquinone derivative from)

RN 32568-81-3 CAPLUS

CN Benzoic acid, 2,2'-[oxybis(4,1-phenylenecarbonyl)]bis- (9CI) (CA INDEX NAME)



L5 ANSWER 46 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)

L5 ANSWER 47 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1977:585285 CAPLUS

DN 87:195285

TI Bisazo free radical initiators containing ultraviolet light stabilizing groups

IN Sheppard, Chester S.; MacLeay, Ronald E.

PA Pennwalt Corp., USA

SO U.S., 21 pp. Division of U.S. 3,956,269.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4045426	A	19770830	US 1976-663655	19760304
	US 3956269	A	19760511	US 1974-435623	19740122
	US 4042773	A	19770816	US 1976-680546	19760427
	US 4055714	A	19771025	US 1976-680545	19760427
PRAI	US 1970-98893	A1	19701216		
	US 1974-435623	A3	19740122		
	US 1974-435622	A3	19740122		

AB Comps. containing azo or peroxide linkages as well as the radical of an UV light stabilizing group function as polymerization initiators which cause an UV light stabilizing group to be chemical bound to the polymer. Thus, 4-(4-tert-butylazo-4-cyanovalexyloxy)-2-hydroxybenzophenone (I) [36339-08-9], prepared by treating 2,4-dihydroxybenzophenone [131-56-6] with 4-tert-butylazo-4-cyanovalexyloxy chloride [25176-64-1], was used as an initiator in the polymerization of styrene. The polystyrene [9003-53-6] product had a higher retention of flexural strength than polymer prepared by adding an extraneous UV absorber during polymerization (degradation after 160 h of UV radiation) or polymer prepared without any UV stabilizer present (degradation after 80 h exposure). I was also effective as a crosslinking agent for a maleic anhydride-phthalic anhydride-propylene glycol copolymer [25037-66-5] providing a cured resin which was stabilized against UV light degradation

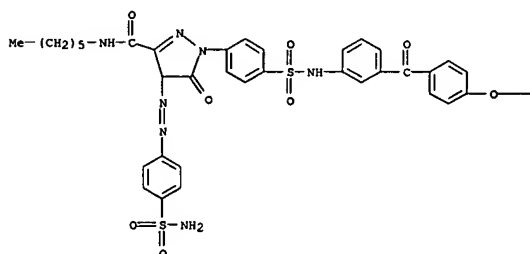
L5 ANSWER 48 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN  
 AN 1977:568628 CAPLUS  
 DN 87:168628  
 TI Azo-peroxide free radical initiators containing ultraviolet light stabilizing groups  
 IN Sheppard, Chester S.; MacLeay, Ronald E.  
 PA Pennwalt Corp., USA  
 SO U.S., 20 pp. Division of U.S. 3,956,269.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 4045427	A	19770830	US 1976-663654	19760304
US 3956269	A	19760511	US 1974-435623	19740122
US 4042773	A	19770816	US 1976-680546	19760427
US 4055714	A	19771025	US 1976-680545	19760427
PRAI US 1970-98893	A1	19701216		
US 1974-435623	A3	19740122		
US 1974-435622	A3	19740122		

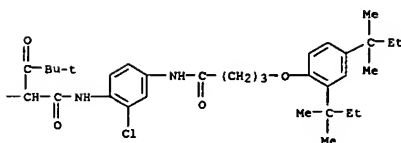
AB Comps. containing azo or peroxide linkages as well as the radical of an UV light-stabilizing group were prepared for use as polymerization initiators which provide an UV light-stabilizing group to be chemical bound to the polymer. Thus, 10.2 g levulinic acid [123-76-2] in 25 mL water was treated with 50% NaOH 7.04, NaCN 5.88 and tert-butylhydrazine hydrochloride [7400-27-3] 10.9 g at room temperature and chlorinated at <15°C to give 4-tert-butylazo-4-cyanovaleic acid [25149-50-2] which (5 g) was treated with 2 mL thionyl chloride in 15 mL C6H6 to give 4-tert-butylazo-4-cyanovaleic chloride (I) [25176-64-1]. A solution of 2,4-dihydroxybenzophenone [131-56-6] and 2.5 mL pyridine in 35 mL ether was treated with 4 g I to prepare 4-(4-tert-butylazo-4-cyanovaleoxy)-2-hydroxybenzophenone (II) [36339-08-9]. Polystyrene [9003-53-6], prepared by suspension polymerization of water 1000, gelatin 0.0828, Ca phosphate 50 and styrene 500 g containing 0.755 parts per hundred parts resin II, was press-molded 5 min at 300°F to give samples with flexural strength 7243, 6384, 6595, and 6581 psi after 0, 80, 160, and 240 h exposure to UV light, resp.

L5 ANSWER 49 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (photog. yellow coupler, for producing pyrazolonylazo dye images)  
 RN 62555-58-2 CAPLUS  
 CN 1H-Pyrazole-3-carboxamide, 4-[[4-(aminosulfonyl)phenyl]azo]-1-[[[3-[4-[[1-[[[5-[[4-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]-2-chlorophenyl]amino]carbonyl]-3,3-dimethyl-2-oxobutoxy]benzoyl]phenyl]amino]sulfonyl]phenyl]-N-hexyl-4,5-dihydro-5-oxo- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L5 ANSWER 49 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN  
 AN 1977:163598 CAPLUS  
 DN 86:163598  
 TI Pyrazolonylazo dye-releasing coupler for diffusion-transfer photographic materials  
 IN Fujita, Shinsaku; Harada, Tooru; Sakanoue, Seiki  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 21 pp.  
 CODEN: JFOKXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

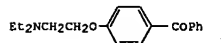
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 51133021	A2	19761118	JP 1975-57040	19750514
JP 57012982	B4	19820313		
PRAI JP 1975-57040	A	19750514		

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Diffusion-transfer photog. materials contain, in sl of their Ag halide emulsion layers, a diffusable pyrazolonylazo dye-releasing coupler in which the pyrazolonylazo dye group is bonded via an O-containing group to the coupler part. The coupler does not release N during development, and gives a high-quality yellow dye. Thus, 1-phenyl-3-(N-hexylcarbamoyl)-4-(p-sulfamoylphenylazo)-5-pyrazolone 5 g was treated with chlorosulfonic acid 25 mL at 10°. The resulting 1-(p-chlorosulfonylphenyl)-3-(N-hexylcarbamoyl)-4-(p-sulfamoylphenylazo)-5-pyrazolone 4.1 and 1-hydroxy-4-[4'-(4'-aminophenyl)-1',4'-dioxabutyl]-N-dodecylamino-2-naphthamide 4g were dispersed in THF 88 mL, pyridine 5.6 mL added, the mixture stirred for 4.5 h, and the reaction products were added to 1% HCl 500 mL to precipitate the coupler I (m.p. 196-8°). Then, I was added to a high-sensitivity neg. type red-sensitive Ag(Br,I) (7 mol I) emulsion sensitized with 3,3',9-triethyl-5,5'-dichlorothiacarbocyanine iodine, coated on a gelatin-coated cellulose triacetate support so that the amts. of I, Ag halide, and gelatin in the red-sensitive emulsion layer were 1.5 + 10-5, 7.5 + 10-5 mol, and 20 mg/100 cm<sup>2</sup>, resp., overcoated with gelatin 6.5 mg/100 cm<sup>2</sup>, exposed through an optical wedge and a red filter to a 2854 K W-lamp, placed on a receptor sheet prepared by coating baryta paper with a solution containing a polymer having the structure II (mol weight 30,000-40,000) 35 and gelatin 71, and processed with a solution containing ascorbic acid 0.2, 3-methyl-N-ethyl-N-(β-hydroxyethyl)-p-phenylenediamine H<sub>2</sub>SO<sub>4</sub> salt 35, KBr 1.4, 6-nitrobenzimidazole HNO<sub>3</sub> salt 0.2, hydroxyethyl cellulose 30, and NaOH 20 g/L to give an image having a maximum and min. d. of 2.0 and 0.10, resp., vs. 1.9 and 0.10, resp., for control containing III instead of I.

IT 62555-58-2

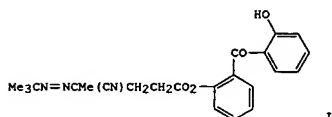
L5 ANSWER 50 OF 54 CAPLUS COPYRIGHT 2006 ACS ON STN  
 AN 1976:517314 CAPLUS  
 DN 85:117314  
 TI Effects of 4-[β-(diethylamino)-ethoxy]-benzophenone upon carotenogenesis in Rhodospirillum rubrum  
 AU Hayman, Ernest, P.; Yokoyama, Henry  
 CS Fruit Veg. Chem. Lab., Agric. Res. Stn., Pasadena, CA, USA  
 SO Journal of Bacteriology (1976), 127(2), 1030-1  
 CODEN: JOBAA; ISSN: 0021-9193  
 DT Journal  
 LA English  
 GI



AB Carotenoid production was determined in illuminated anaerobically maintained cultures of R. rubrum in media with and without 4-[β-(diethylamino)ethoxy]benzophenone (I) [796-77-0]. In treated cultures, lycopene [502-65-8] which normally is not produced by R. rubrum accumulated as the predominant pigment, and total carotenoids increased 5- to 6-fold.

L5 ANSWER 51 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1976:478678 CAPLUS  
 DN 85:78678  
 TI Azo free radical initiators containing ultraviolet light stabilizing groups  
 IN Sheppard, Chester S.; MacLeay, Ronald E.  
 PA Pennwalt Corp., USA  
 SO U.S., 21 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 3956269	A	19760511	US 1974-435623	19740122
CA 974981	A1	19750923	CA 1971-125167	19711014
JP 55050041	B4	19801216	JP 1971-101114	19711215
US 4045427	A	19770830	US 1976-663654	19760304
US 4045426	A	19770830	US 1976-663655	19760304
US 4042773	A	19770816	US 1976-680546	19760427
US 4055714	A	19771025	US 1976-680545	19760427
US 4129586	A	19781212	US 1977-803493	19770606
FRAI US 1970-98893	A1	19701216		
US 1974-435622	A3	19740122		
US 1974-435623	A3	19740122		
US 1976-663653	A1	19760304		



AB Peroxide and azo free-radical initiators containing uv light stabilizing groups are prepared by treating uv stabilizers with azo compds. or peroxides or by rearrangement of azo compds. or peroxides containing phenyl esters of carboxylic acids. Thus, treatment of 2,2'-dihydroxybenzophenone (I) [835-11-0] with 4-tert-butylazo-4-cyanovaleeryl chloride [25176-64-1] gave 2-(4-tert-butylazo-4-cyanovaleeryl)-2'-hydroxybenzophenone (II) [37813-09-5]. Styrene was polymerized in the presence of 0.755 phr II to give polystyrene [9003-53-6] which retained 90.9% of its flexural strength after 240 hr exposure to a uv lamp. Treatment of I with tert-butyl 2-(chlorocarbonyl)peroxybenzoate [36865-32-4] gave a 94.3% yield of OO-tert-butyl O-2-(2-hydroxybenzoyl)phenyl monoperoxyphthalate [36865-31-3] which was also a suitable catalyst and uv light stabilizer for the polymerization of styrene.

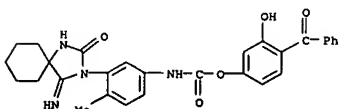
L5 ANSWER 52 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1974:497730 CAPLUS  
 DN 81:97730  
 TI Fading arresters for color photographic images  
 PA Konishiroku Photo Industry Co., Ltd.; Sankyo Co., Ltd.  
 SO Brit., 34 pp.  
 CODEN: BRXXAA  
 DT Patent  
 LA English  
 FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 1354313	A	19740530	GB 1971-18000	19710528
JP 49020973	B4	19740529	JP 1970-46110	19700528
FRAI JP 1970-46110	A	19700528		

AB Addition of imidazoline or oxazolidine derivs. to color photog. emulsion layers improved the light fastness of image dyes when used with or without a common uv absorber. The compds. themselves were colorless and caused no staining, nor change in color tone on development. Thus, addition of 300 mg 3-cyclohexyl-4-imino-5-methyl-5-phenyl-2-imidazolidinone, prepared by ring closure of 1-cyclohexyl-3-(1-cyano-1-phenylethyl)urea, to 100 ml Ag iodobromide emulsion containing a yellow coupler, followed by exposure, processing, and exposure of the yellow image to south sunlight for 42, 92, and 148 hr gave fading ratios of 100, 93, and 81%, resp., compared with ratios of 87, 67, and 43% for an unstabilized image. Use of 96 other compds. was described, together with examples of their preparation

IT 36027-82-4  
 RL: USES (Uses)  
 (color photog. emulsions containing, for improved dye image light fastness)

RN 36027-82-4 CAPLUS  
 CN Carbanic acid, [3-(4-imino-2-oxo-1,3-diazaspiro[4.5]dec-3-yl)-4-methylphenyl]-, 4-benzoyl-3-hydroxyphenyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 51 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L5 ANSWER 53 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1974:4838 CAPLUS  
 DN 80:4838  
 TI Dyeing with cationic dyes  
 IN Moriga, Hiroyuki  
 PA Teijin Ltd.  
 SO Jpn. Tokkyo Koho, pp.  
 CODEN: JAXXAD  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 47040913	B4	19721016	JP 1969-69890	19690903

AB The cationic dye fastness of fibers or molded articles was improved by adding to the dye bath 0.3-6.0% by weight of sulfonate (I, X1 and X2 = H, CH3, C2H5, t-butyl, halogen, or OH, m and p = 1-4, Z = O, NH, or COO, Y = S, CO, SO2, C(CH3)2, CH2, or O, M = H, Li, Na, or K, and n = 1-4). Thus, 4-hydroxybenzophenone 19.8, caustic soda 4, methanol 100, and propane sultone 12.2 parts were heated 1 hr at the b.p. of methanol and cooled to give sodium 3-(p-benzoylphenoxy)propane-1-sulfonate (I, M = Na, m = p = 0, Y = CO, Z = O, n = 3) (II) [49556-89-0]. Acetate fabric was dyed 60 min at 75.deg. in a dye bath containing 3% by fiber weight of Astrazon Blue 3RL and 5% by fiber weight of II, and after soaping, brilliant blue dyed fabric was obtained.

L5 ANSWER 54 OF 54 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1972:515110 CAPLUS

DN 77:115110

TI Free-radical azo or peroxide initiators containing ultraviolet

radiation-stabilizing groups

IN Sheppard, Chester S.; MacLeay, Ronald E.

PA Pennwalt Corp.

SO Ger. Offen., 67 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2162534	A	19720706	DE 1971-2162534	19711216
	CA 974981	A1	19750923	CA 1971-125167	19711014
	JP 55050041	B4	19801216	JP 1971-101114	19711215
	US 4042773	A	19770816	US 1976-680546	19760427
	US 4055714	A	19771025	US 1976-680545	19760427
PRAI	US 1970-98893	A	19701216		
	US 1974-435622	A3	19740122		

AB Catalysts containing both uv-absorbing groups and azo or peroxide groups give polymers from which the uv-absorbers are not removed by evaporation, extraction or erosion. Thus, reaction of Na levulinate with NaCN and Me<sub>3</sub>CNHNH<sub>2</sub> in H<sub>2</sub>O 5 hr at room temperature and chlorination at 5-15.deg.

gives 52.5% 4-(tert-butylazo)-4-cyanovaleric acid [25149-50-2], which

with SOCl<sub>2</sub> in C<sub>6</sub>H<sub>6</sub> at 25.deg. gives 98.8% 4-(tert-butylazo)-4-cyanovaleroyl chloride (I) [25176-64-1]. 2,4-Dihydroxybenzophenone, I, and pyridine in Et<sub>2</sub>O at 25.deg. give 99% 4-[[4-(tert-butylazo)-4-cyanovaleroyl]oxy]-2-hydroxybenzophenone (II) [36339-08-9]. Suspension polymerization in the presence of 0.755 phr II gives polystyrene [9003-53-6], mol. weight 302,800, tensile strength 509 and 462 Kg/cm<sup>2</sup>, resp., before and after 240 hr exposure to uv light.

=> => d que l10 stat

L6	79	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	"LEE KYUNG HOON"/AU
L7	24	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	"RYU SEUNG MIN"/AU
L8	10	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	"JUNG YEON KYOUNG"/AU
L9	97	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L6 OR L7 OR L8
L10	3	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L9 AND BENZOPHENONE

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L10 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:1036193 CAPLUS

DN 142:24670

TI Lightfast additive having UV-absorbing moiety and ink composition

IN Lee, Kyung-Hoon; Ryu, Seung-Min; Jung, Yeon-Kyoung

PA Samsung Electronics Co., Ltd., S. Korea

SO U.S. Pat. Appl. Publ., 17 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004237837	A1	20041202	US 2004-851161	20040524
PRAI	JP 2005002111	A2	20050106	JP 2004-158268	20040527
OS	KR 2003-33848	A	20030527		

MARPAT 142:24670

AB A lightfast additive has a benzophenone moiety for lightfastness and a moiety for wettability and the ability to stabilize a colorant, where the 2 moieties are covalently bonded. The lightfast additive may exhibit effective UV light absorption capacity, effective wettability,

and an ability to stabilize a colorant. The ink composition of water,

colorant and using the light fast additive has an improved lightfastness and long-term storage stability. Thus, 8.4 g of the 2-hydroxy-4-(4-carboxy)phenoxybenzophenone (preparation given) and EtOAc were stirred

to dissolve the benzophenone compound, 2.6 g glycerol was added, 20 ml of concentrate H2SO4 was slowly added and refluxed for 212 h in the preparation of benzophenone derivative 1-PhCO-2-(OH)C6H3-4-OC6H4CO2CH2CH(OH)CH2OH, and suitable for mixing (8.0 g) with C.I. Direct Black 9 4.0, water 77.0, iso-ProH 3.0, and ethylene glycol 8.0 g.

L10 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:1036192 CAPLUS

DN 142:40226

TI Benzophenone compound and ink composition including the same

IN Lee, Kyung-Hoon; Ryu, Seung-Min; Jung, Yeon-Kyoung

PA Samsung Electronics Co., Ltd., S. Korea

SO U.S. Pat. Appl. Publ., 21 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004237836	A1	20041202	US 2004-851124	20040524
PRAI	KR 2003-33837	A	20030527		

AB The invention relates to a benzophenone compound, and an ink composition that includes the benzophenone compound can absorb UV light, and thus improve lightfastness of images produced with the ink composition containing the compound. Due to the function of the benzophenone

compound as a lightfast dispersant, the dispersibility and the lightfastness

of an ink composition are improved with the benzophenone compound, without requiring an addnl. lightfastness enhancer. An example of the compds. is 2-hydroxy-4-(4-carboxy)phenoxybenzophenone which was synthesized.

L10 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:779905 CAPLUS

DN 141:297361

TI Lightfast colorant and lightfast ink composition including the same

IN Lee, Kyung-hoon; Ryu, Seung-min; Jung, Yeon-Kyoung

PA Samsung Electronics Co., Ltd., S. Korea

SO U.S. Pat. Appl. Publ., 22 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004182279	A1	20040923	US 2004-802949	20040318
PRAI	KR 2003-17746	A	20030321		
OS	MARPAT 141:297361				

AB A lightfast colorant and a lightfast ink composition include a lightfast colorant that is derived by covalently binding a benzophenone derivative and a conventional colorant and that imparts effective lightfastness and long-term storage stability to an ink composition that

is prepared with the same. A typical dye was manufactured by reacting 8.3 g 2-hydroxy-4-(4-carboxyphenoxy)benzophenone 8 h in DMSO with 3 g SOCl2, adding 12.3 g C.I. Acid Yellow 23, and heating 8 h at 80°.



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FILE 'REGISTRY' ENTERED AT 14:35:36 ON 06 FEB 2006

L1               STRUCTURE UPLOADED  
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L3               9962 SEA SSS FUL L1

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L5               54 SEA ABB=ON PLU=ON L3 (L) (DYE OR COLORANT OR AZO OR MONOAZO OR  
                  PIGMENT OR ANTHRAQUINONE)

                  D QUE L5 STAT

                  D 1-54 BIB ABS HITSTR

                  E LEE KYUNG HOON/AU

L6               79 SEA ABB=ON PLU=ON "LEE KYUNG HOON"/AU

                  E RYU SEUNG MIN/AU

L7               24 SEA ABB=ON PLU=ON "RYU SEUNG MIN"/AU

                  E JUNG YEON KYOUNG/AU

L8               10 SEA ABB=ON PLU=ON "JUNG YEON KYOUNG"/AU

L9               97 SEA ABB=ON PLU=ON L6 OR L7 OR L8

L10              3 SEA ABB=ON PLU=ON L9 AND BENZOPHENONE

                  D QUE L10 STAT

                  D 1-3 BIB ABS

FILE HOME

FILE REGISTRY

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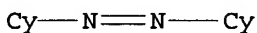
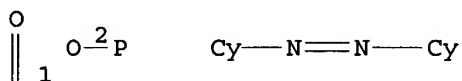
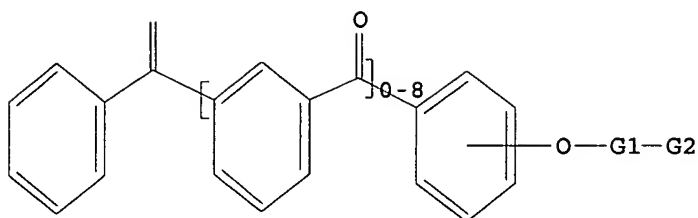
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FILE LAST UPDATED: 5 Feb 2006 (20060205/ED)

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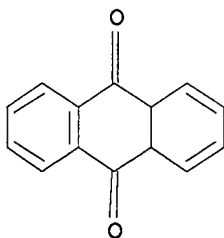
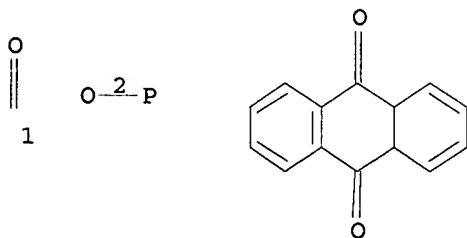
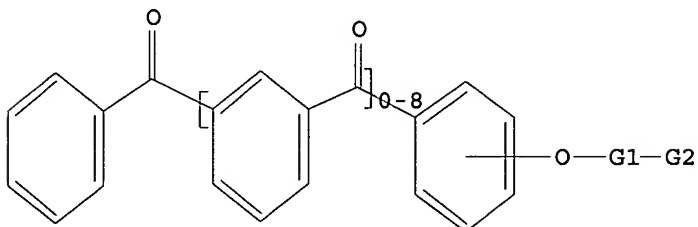
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L11 STR



G1 Cy,Hy,Ak

G2 O,S,N,SO2,NH,[@1],[@2]

Structure attributes must be viewed using STN Express query preparation.  
L12 STR



G1 Cy,Hy,Ak

G2 O,S,N,SO2,NH,[@1],[@2]

Structure attributes must be viewed using STN Express query preparation.  
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SEARCH TIME: 00.00.02

15 ANSWERS

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FILE LAST UPDATED: 5 Feb 2006 (20060205/ED)

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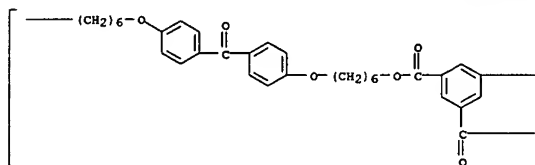
<http://www.cas.org/infopolicy.html>  
'FIONA' IS DEFAULT FORMAT FOR 'CAPLUS' FILE

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L15            20 L14

=> d 1-20 bib abs hitstr

L15 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2003:339324 CAPLUS  
 DN 139:76249  
 TI Photofabrication of kinoforms as multilevel relief structures on azobenzene-containing polymer films  
 AU Minabe, Jiro; Yasuda, Shin; Kawano, Katsunori; Maruyama, Tatsuya; Yamada, Hidenori  
 CS Corporate Research Center, Fuji Xerox Company, Ltd., Kanagawa, 259-0157, Japan  
 SO Japanese Journal of Applied Physics, Part 2: Letters (2003), 42(4B), L426-L428  
 CODEN: JAPLDS  
 PB Japan Society of Applied Physics  
 DT Journal  
 LA English  
 AB The authors proposed a new method of fabricating kinoforms using azobenzene-containing polymers. The kinoform was designed as a phase pattern by applying the Gerchberg-Saxton algorithm. The authors converted the phase pattern into a gray-tone image, and used it as an amplitude mask. The azopolymer film was irradiated through the mask with a circularly polarized beam. In this way, the film was inscribed with a multilevel relief structure. By irradiating the film with a probe beam, the authors obtained the desired image in the diffracted beam. Thus, the authors successfully fabricated the kinoform on the azopolymer film by only one exposure. The method offers the advantage of the fabrication of multilevel relief structures with single-step processing, without the necessity for any subsequent processing steps.  
 IT 439526-53-5  
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)  
 (method of photofabrication of kinoforms as multilevel relief structures on azobenzene-containing polymer films using single-step processing)  
 RN 438526-53-5 CAPLUS  
 CN Poly[oxy carbonyl[5-[[6-[[4-[(4-cyanophenyl)azo]phenoxy]hexyl]oxy]-1,3-phenylene]carbonyloxy-1,6-hexanediyl]oxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,6-hexanediyl] (9CI) (CA INDEX NAME)

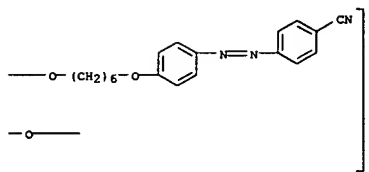
PAGE 1-A



L15 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2003:330005 CAPLUS  
 DN 139:60335  
 TI Single-step photofabrication of kinoforms in use of azobenzene-containing polymer films  
 AU Yasuda, Shin; Minabe, Jiro; Kawano, Katsunori; Maruyama, Tatsuya; Yamada, Hidenori  
 CS Corporate Research Center, Fuji Xerox Company, Ltd., Kanagawa, 259-0157, Japan  
 SO Materials Research Society Symposium Proceedings (2002), 734(Polymer/Metal Interfaces and Defect Mediated Phenomena in Ordered Polymers), 345-350  
 CODEN: MRSPDH; ISSN: 0272-9172  
 PB Materials Research Society  
 DT Journal  
 LA English  
 AB The authors propose a new method of optically fabricating kinoforms using polyester containing cyanoazobenzene units in the side chain. This method utilizes the surface relief structures induced optically on the azo-polymer films. Using a gray-tone amplitude mask with black and white lines as a spatial light modulator, the authors constructed the surface relief structures on the azo-polymer films with an argon-ion laser beam (488 nm). The relief depths constructed were deep enough to provide a wide range of visible light with a phase difference of  $2\pi$ . In addition, irradiation on the azo-polymer film with a spatially modulated light that had multilevel intensities inscribed the multilevel relief structure reflecting the intensity modulation. This property is applicable to the fabrication of diffractive optical elements, especially kinoforms, because the multilevel relief structure provides an incident light with phase modulation. The authors designed a phase pattern for a kinoform by computation and expressed it as a gray-tone amplitude mask. Irradiation on the film through the gray-tone mask with the pump beam inscribed a multilevel relief structure that diffracted an incident light to produce a desired image. The desired image appeared without the effect of the internal refractive index modulation of the film. The authors, therefore, confirmed a possibility of fabricating a kinoform with a multilevel relief structure on the azo-polymer film. Since the authors fabrication method for kinoforms requires only exposure, it has a significant advantage over other techniques that require addnl. processes such as developing and etching.  
 IT 152969-99-8  
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)  
 (single-step photofabrication of kinoforms with multilevel relief structure on azobenzene-containing polymer films)  
 RN 152969-99-8 CAPLUS  
 CN Poly[oxy carbonyl[5-[[6-[[4-[(1E)-(4-cyanophenyl)azo]phenoxy]hexyl]oxy]-1,3-phenylene]carbonyloxy-1,6-hexanediyl]oxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,6-hexanediyl] (9CI) (CA INDEX NAME)

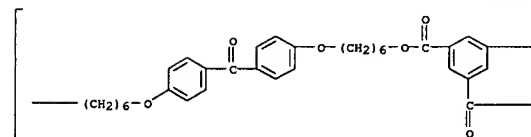
L15 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B

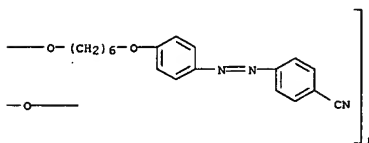
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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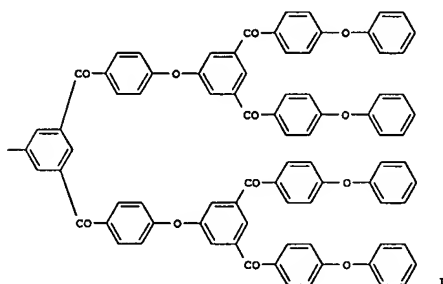


PAGE 1-B

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2002:769213 CAPLUS  
 DN 137:286136  
 TI Amorphous organic nonlinear optical compound and dendrimer  
 IN Kurioka, Shuji  
 PA Kyocera Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JQXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002296631	A2	20021009	JP 2001-97936	20010330
PRAI	JP 2001-97936		20010330		
GI					



AB The invention refers to an amorphous organic nonlinear optical material containing a nonlinear optical compound substituted with a dendrimer I in order

to prevent crystallization and maintain a large nonlinear optical constant

IT 454665-01-1P

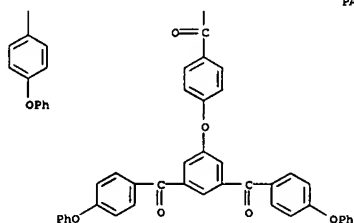
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
 (amorphous organic nonlinear optical compound and dendrimer)

RN 454665-01-1 CAPLUS

CN Methanone, [[[4-[(4-nitrophenyl)azo]phenyl]imino]bis(2,1-ethanediyl)oxy-5,1,3-benzenetriyl]]tetrakis[[4-(3,5-bis(4-phenoxybenzoyl)phenoxy]phenyl]-(9CI) (CA INDEX NAME)

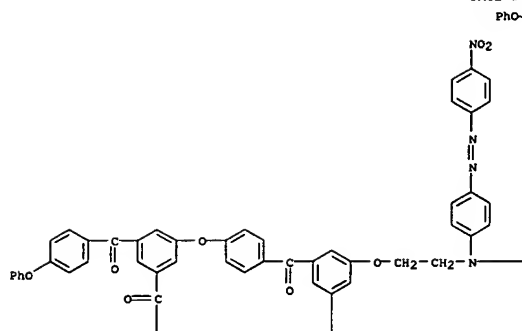
L15 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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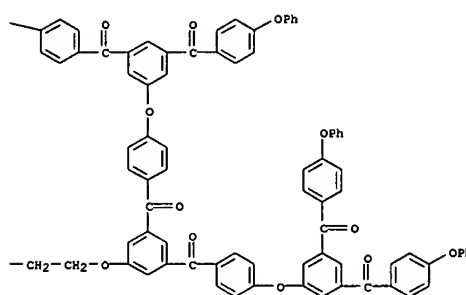


L15 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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L15 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:686748 CAPLUS  
 DN 137:223867  
 TI Chemical compound for nonlinear optical material  
 IN Kurioka, Shuji  
 PA Kyocera Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JQXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002258337	A2	20020911	JP 2001-55337	20010228
PRAI	JP 2001-55337		20010228		

AB The compound comprises a formula {3,5-bis[3,5-bis(PhO-p-C6H4-O-p-C6H4-CO)C6H4-O-p-C6H4-CO]C6H4-OCH2CH2}2N-p-C6H4-N-p-C6H4-NO2 which is spin-coated on a substrate or is dispersed in a polymer film.

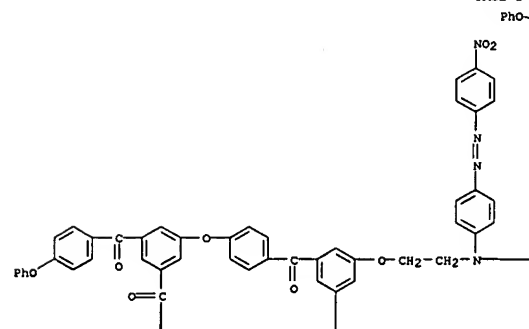
IT 454665-01-1

RL: DEV (Device component use); USES (Uses)  
 (chemical compound for nonlinear optical material)

RN 454665-01-1 CAPLUS

CN Methanone, [[[4-[(4-nitrophenyl)azo]phenyl]imino]bis(2,1-ethanediyl)oxy-5,1,3-benzenetriyl]]tetrakis[[4-(3,5-bis(4-phenoxybenzoyl)phenoxy]phenyl]-(9CI) (CA INDEX NAME)

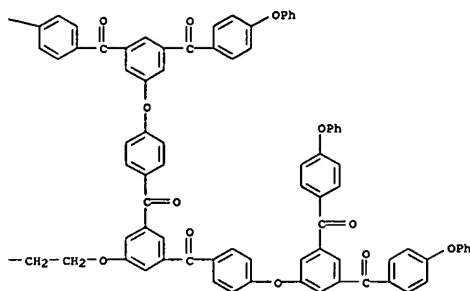
PAGE 1-A



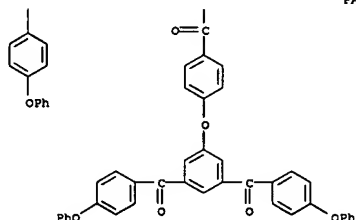
L15 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)

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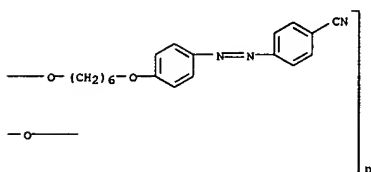
PAGE 2-A



L15 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

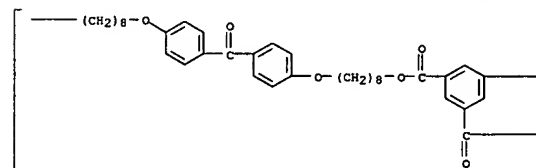
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PAGE 1-B

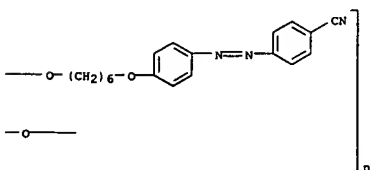


RN 438470-88-3 CAPLUS  
 CN Poly[oxy carbonyl[5-[[6-[4-[(4-cyanophenyl)azo]phenoxy]hexyl]oxy]-1,3-phenylene]carbonyloxy-1,8-octanedioxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,8-octanedioxy] (9CI) (CA INDEX NAME)

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RN 438526-53-5 CAPLUS  
 CN Poly[oxy carbonyl[5-[[6-[4-[(4-cyanophenyl)azo]phenoxy]hexyl]oxy]-1,3-phenylene]carbonyloxy-1,8-octanedioxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,8-octanedioxy] (9CI) (CA INDEX NAME)

L15 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:464481 CAPLUS

DN 137:54370

TI Azobenzene-containing polyester optical diffraction devices with uneven surface, their manufacture, and reproduced devices using stampers  
 IN Kono, Katsunori; Minabe, Jiro; Maruyama, Tatsuya; Yasuda, Susumu  
 PA Fuji Xerox Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKOXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002174731	AZ	20020621	JP 2001-170214	20010605
JP 2001-170214		20010605		

AB The device, useful for holog. optical elements (HOE), diffusers, etc., comprises polyesters having azobenzene-containing pendant groups and contains concaves and convexes on the surface with sufficient depth for refraction.

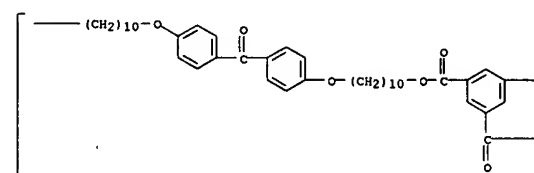
The surface patterns are relief holograms produced by irradiation. The device reproduction is performed by injection molding or hot pressing using a stamper prepared from the device.

IT 438470-87-2 438470-88-3 438526-53-5

RL: TEM (Technical or engineered material use); USES (Uses)  
 (azobenzene-containing polyester holog. diffraction devices with sufficient depth of surface patterns)

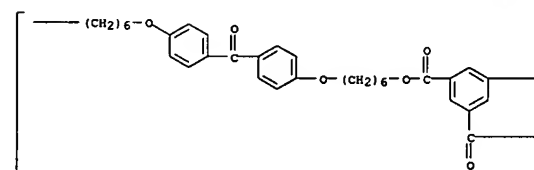
RN 438470-87-2 CAPLUS  
 CN Poly[oxy carbonyl[5-[[6-[4-[(4-cyanophenyl)azo]phenoxy]hexyl]oxy]-1,3-phenylene]carbonyloxy-1,10-decanedioxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,10-decanedioxy] (9CI) (CA INDEX NAME)

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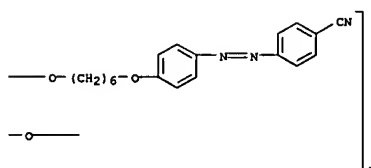


L15 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 phenylene]carbonyloxy-1,6-hexanedioxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,6-hexanedioxy] (9CI) (CA INDEX NAME)

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PAGE 1-B



L15 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN

AN 2001:767531 CAPLUS  
DN 135:325315

TI Photoreactive azo polyester, manufacture of the polyester, optical recording material composition, and optical recording medium

IN Nishikata, Yasunari; Minabe, Jiro; Kono, Katsunori; Baba, Kazuo

PA Fuji Xerox Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JYXXAF

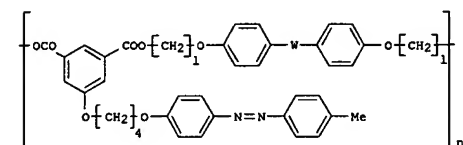
DT Patent

LA Japanese

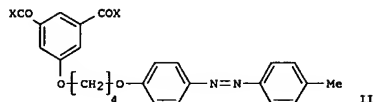
FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001294652	A2	20011023	JP 2000-108313	20000410
JP 3724325	B2	20051207		
PRAI JP 2000-108313		20000410		

GI



I



II

AB The polyester is that represented as I (W = ether, thioether, substituted imino, ketone, sulfone, sulfoxide; 1 = 2-18; n = 5-500). The polyester is manufactured by polymerizing photoreactive dicarboxylic acid II [X = OH, lower alkyloxy, (substituted) benzyloxy, (substituted) phenoxy, lower fatty acid residue, (substituted) benzoic acid residue, halogen] and p-HO(CH<sub>2</sub>)<sub>10</sub>OC<sub>6</sub>H<sub>4</sub>-p-WC<sub>6</sub>H<sub>4</sub>O(CH<sub>2</sub>)<sub>10</sub>H (W, 1 are the same in I) in the presence of a catalyst. The composition is for optical recording utilizing change of

L15 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)

light absorption or n assocd. with irradiation or heating, which contains the polyester. The optical recording medium contains the above comp., which may be for hologram. The hologram is capable of independently recording with both horizontally polarized light and vertically polarized light or the hologram medium may be 2-dimensional or 3-dimensional. Large amt. of data can be recorded rapidly by the medium.

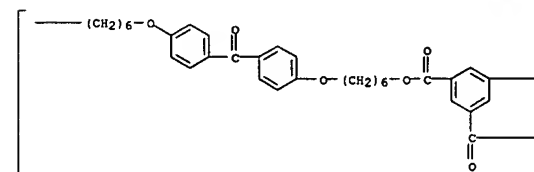
IT 367922-49-4P 367922-53-OP

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
(photoreactive polyester for optical recording utilizing change of light absorption or n under irradiation or heating)

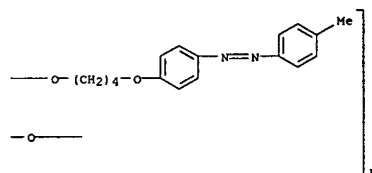
RN 367922-49-4 CAPLUS

CN Poly[oxy-carbonyl[5-[4-[4-[(4-methylphenyl)azo]phenoxy]butoxy]-1,3-phenylene]carbonyloxy-1,6-hexanedioly-1,4-phenylene]carbonyl-1,4-phenyleneoxy-1,6-hexanediyl] (9CI) (CA INDEX NAME)

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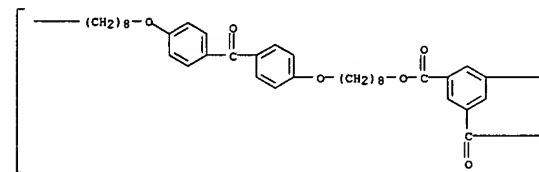


RN 367922-53-0 CAPLUS

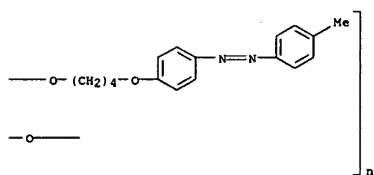
CN Poly[oxy-carbonyl[5-[4-[4-[(4-methylphenyl)azo]phenoxy]butoxy]-1,3-phenylene]carbonyloxy-1,8-octanedioly-1,4-phenylene]carbonyl-1,4-phenyleneoxy-1,8-octanediyl] (9CI) (CA INDEX NAME)

L15 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)

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L15 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2006 ACS ON STN

AN 2000:398643 CAPLUS

DN 133:135680

TI Stimuli-responsive polymers. 4. Photo- and thermo-regulated chiroptical behavior in azobenzene-modified polymers fitted with main chain spirobiindane turns and chiral binaphthyl bends

AU Everlof, G. J.; Jaycox, G. D.

CS DuPont Pharmaceuticals, Wilmington, DE, 19880, USA

SO Polymer (2000), 41(17), 6527-6536

CODEN: POLMAG; ISSN: 0032-3861

PB Elsevier Science Ltd.

DT Journal

LA English

AB A series of azobenzene-modified polyamides fitted with main chain spirobiindane turns and chiral binaphthyl bends was prepared from the solution

polycondensation of trans-azobenzene-4,4'-dicarbonyl chloride with appropriate diamine monomers. When evaluated in their all trans-azobenzene configurations, these materials exhibited a good mix of phys. properties suitable for high performance applications.

Photoinduced

trans + cis isomerization reactions were effected by irradiating polymer solns. with near UV light. Reverse cis + trans isomerization of the backbone azobenzene segments was triggered by either photochem. or thermal means and was monitored by optical absorbance spectroscopy. Thermally induced cis + trans reorganization within each polymer followed the first-order rate law. Activation energies calculated for this process in DMAC all fell near 21-23 kcal mol<sup>-1</sup> and

were not strongly correlated to backbone content. Polymers containing axially asym. S-(-) or R-(+)-2,2'-binaphthyl main chain linkages exhibited thermo- and photo-responsive chiroptical behavior when evaluated in dilute

THF solns. Specifically, the trans-azobenzene-modified materials were all characterized by CD spectra showing intense molar ellipticities within the

300-400 nm spectral window. Sp. rotation magnitudes determined for the trans-polymers at the sodium D-line ranged into the hundreds of degrees and were dependent on the extent of binaphthyl loading along the polyamide

backbone. The irradiation of the polymer samples to drive the trans + cis isomerization reaction resulted in an immediate chiroptical response, with CD band intensities and optical rotations significantly diminished. These effects were fully reversible and were attributed to the presence of

putative one-handed helical conformations in the trans-azobenzene-modified

polymers that were severely disrupted following the trans + cis isomerization reaction.

IT 206271-94-5P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(photo- and thermo-regulated chiroptical behavior in

azobenzene-containing polymers fitted with main chain spirobiindane turns and chiral binaphthyl bends)

RN 206271-94-5 CAPLUS

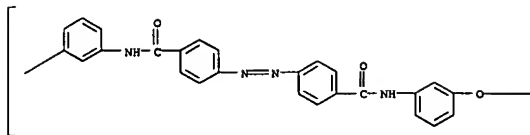
CN

Poly[oxy-1,4-phenylene]carbonyl-1,4-phenylene]carbonyl-1,4-phenyleneoxy-1,3-phenylene]imino]carbonyl-1,4-phenylene]azo-1,4-phenylene]carbonylimino-1,3-

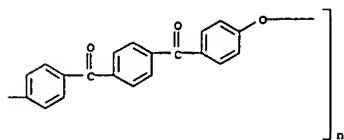


L15 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
phenylene), (E)- (9CI) (CA INDEX NAME)

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PAGE 1-B



RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
130:95918

AN 1998:753136 CAPLUS

DN 130:95918

TI Stimuli-responsive polymers. III. Poly(aryl ether ketone amide)s with reversible trans  $\leftrightarrow$  cis-4,4'-azobenzene and fixed 2,2'-binaphthyl kinking elements in the main chain

AU Howe, Laurie A.; Jaycox, Gary D.

CS Central Research and Development, E. I. Du Pont de Nemours and Co., Wilmington, DE, 19880-0328, USA

SO Journal of Polymer Science, Part A: Polymer Chemistry (1998), 36(16), 2827-2837

CODEN: JPACED; ISSN: 0887-624X

PB John Wiley & Sons, Inc.

DT Journal

LA English

AB The low-temperature polycondensation of trans-azobenzene-4,4'-dicarbonyl chloride with (S)-(-)-1,1'-binaphthyl-2,2'-diamine and/or 1,4-bis(3-aminophenoxy-4'-benzoyl)benzene afforded a new series of poly(aryl ether ketone amide)s with both fixed and photoinducible kinking elements positioned randomly along the main chain. In their lower energy,

trans-azobenzene configurations, the orange, film-forming materials were amorphous, highly tractable, and thermally stable under air or nitrogen

up to about 420°C. Variants endowed with higher loadings of the bent binaphthyl monomer were soluble in a variety of organic solvent media

including THF and acetone. The introduction of cis-azobenzene backbone kinks into these materials was carried out by irradiating the polymer solns. with near-UV light. Up to 70% of the azobenzene moieties in these polymers

were capable of assuming the higher energy cis-configuration, thus greatly increasing the number of bent or kinked sites positioned along each

polymer backbone. In solution, reverse cis  $\rightarrow$  trans isomerization reactions

were triggered thermally and were quant. tracked by both optical absorbance and <sup>1</sup>H NMR spectroscopies. Activation parameters calculated

for cis  $\rightarrow$  trans reorganization of the polymer backbone were not dependent upon the chemical composition or mol. weight of the polymers

but did exhibit a small dependence upon the nature of the solvent medium used to conduct the isomerization experiment

IT 206271-94-5P

RL: PEP (Physical, engineering or chemical process); PRP (Properties);

SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation and properties of stimuli-responsive poly(aryl ether

ketone amide)s with reversible trans  $\leftrightarrow$  cis-4,4'-azobenzene and fixed

2,2'-binaphthyl kinking elements in the main chain)

RN 206271-94-5 CAPLUS

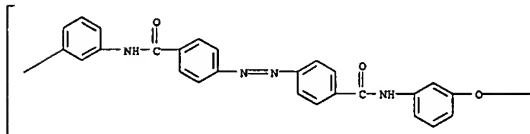
CN

Poly(oxy-1,4-phenylenecarbonyl-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,3-phenyleneimino-

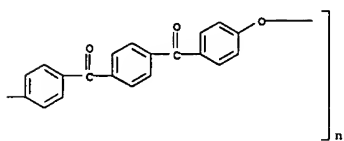
carbonyl-1,4-phenyleneazo-1,4-phenylenecarbonylimino-1,3-phenylene), (E)- (9CI) (CA INDEX NAME)

L15 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-A



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RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:531810 CAPLUS

DN 129:260941

TI Polymers with kinky architectures: poly(aryl ether ketone amide)s with reversible trans  $\leftrightarrow$  cis-4,4'-azobenzene and fixed 2,2'-binaphthyl kinking elements in the main chain

AU Jaycox, Gary D.

CS Experimental Station, Central Research and Development, E. I. Du Pont de Nemours and Co., Wilmington, DE, 19880-0328, USA

SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1998), 39(2), 472-473

CODEN: ACPAPY; ISSN: 0032-3934

PB American Chemical Society, Division of Polymer Chemistry

DT Journal

LA English

AB The polycondensation of azobenzene-4,4'-dicarbonyl chloride with (S)-(-)-1,1'-binaphthyl-2,2'-diamine and/or bis-1,4-(3-aminophenoxy-4'-benzoyl)benzene afforded a series of poly(aryl ether ketone amide)s with

both fixed and photo-inducible kinking elements positioned randomly along the main chain. In their lower energy, trans-azobenzene configurations,

the orange film forming materials were amorphous, highly tractable and were thermally stable up to 420 °C. The introduction of

cis-azobenzene backbone kinks into these materials was carried out by irradiating the polymer solns. with near-UV light. Reverse cis  $\leftrightarrow$  trans

isomerization reactions were triggered thermally and were tracked by both optical absorbance and NMR spectroscopies. The photo- and

thermo-mediated regulation of polymer optical activity was also demonstrated.

IT 206271-94-5P

RL: PEP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and characterization of poly(aryl ether ketone amide)s

with kinky architectures)

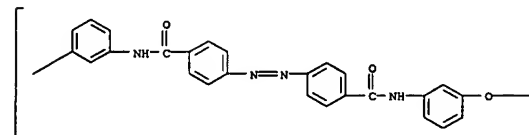
RN 206271-94-5 CAPLUS

CN

Poly(oxy-1,4-phenylenecarbonyl-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,3-phenyleneimino-

carbonyl-1,4-phenyleneazo-1,4-phenylenecarbonylimino-1,3-phenylene), (E)- (9CI) (CA INDEX NAME)

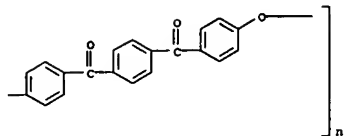
PAGE 1-A



L15 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)

PAGE 1-B



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:531683 CAPLUS

DN 129:245766

TI Proton NMR spectroscopy: a tool for tracking trans-cis isomerization reactions in azobenzene modified polymers

AU Jaycox, Gary D.; Howe, Laurie A.; Beattie, Margaret S.

CS Central Research and Development Experimental Station, E. I. Du Pont de Nemours and Co., Wilmington, DE, 19880-0328, USA

SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1998), 39(2), 332-333

CODEN: ACPPAY; ISSN: 0032-3934

PB American Chemical Society, Division of Polymer Chemistry

DT Journal

LA English

AB The geometries, dipole moments and basicities of azobenzene derivs. all undergo significant changes during the isomerization process. When triggered within a polymer system, trans-cis isomerization reactions have the potential to perturb the chemical environments of protons that are localized both in close proximity to the azobenzene moiety and further down the polymer chain. These perturbations are often of sufficient magnitude that relatively simple NMR expts. can be used to quant. track the course of the isomerization process in stimuli-responsive materials

of

this kind.

IT 206271-94-5

RL: PRP (Properties)

(proton NMR spectroscopy as a tool for tracking trans-cis isomerization

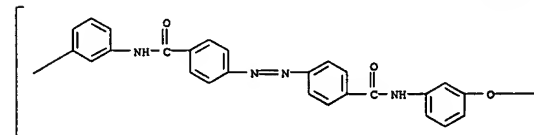
reactions in azobenzene modified polymers)

RN 206271-94-5 CAPLUS

CN

Poly(oxy-1,4-phenylenecarbonyl-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,3-phenyleneimino-1,4-phenyleneazo-1,4-phenylenecarbonylimino-1,3-phenylene), (E)- (9CI) (CA INDEX NAME)

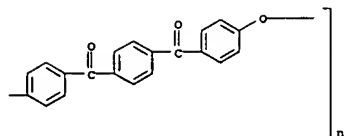
PAGE 1-A



L15 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)

PAGE 1-B



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:247584 CAPLUS

DN 128:295307

TI Azobenzene modified poly(aryl ether ketone amide)s. 2. Photo- and thermo-responsive behavior in dilute solution

AU Beattie, Margaret S.; Jackson, Christian; Jaycox, Gary D.

CS Experimental Station, Central Res. and Development, E. I. Du Pont de Nemours and Co., Wilmington, DE, 19880-0328, USA

SO Polymer (1998), 39(12), 2597-2605

CODEN: POLMAG; ISSN: 0032-3861

PB Elsevier Science Ltd.

DT Journal

LA English

AB A number of azobenzene modified poly(aryl ether ketone amide)s with differing

backbone geometries were evaluated for their photo- and thermo-regulated behavior in dilute solution. Photoinduced trans → cis isomerization reactions were carried out by irradiating the polymer samples with UV light at 370-400 nm. Photostationary state compns. achieved under these conditions typically consisted of .apprx.70% of the higher energy cis isomer distributed along the polymer main chain. Reverse cis → trans isomerization of the backbone azobenzene moieties was triggered by either photochem. or thermal means and was monitored by optical

absorbance

and 1H-NMR. Thermally induced cis → trans return in each of the polymers obeyed the first-order rate law. Activation energies, calculated for

the dark isomerization reaction were .apprx.21 kcal/mol. These values were not dependent on the overall structure or mol. weight of the polymer backbone and were nearly identical to those determined for several lower

mol.

weight model compds. Calculated half-lives for the isomerization of cis-azobenzene linkages buried in the polymer backbone ranged from 1 day near room temperature to about 1 h at 60°. Data gleaned from SEC expts. suggested that polymers endowed with conformationally restricted geometries underwent a two-fold reduction in hydrodynamic radius in response

to UV light exposure. Photo-contractions in more flexible polymer samples

appeared to be less dramatic, consistent with mol. modeling and dilute

solution viscosity measurements.

IT 206271-94-5

RL: PRP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

(photo- and thermo-initiated cis-trans isomerization in azo group-containing polyamide-polyketones in dilute solution)

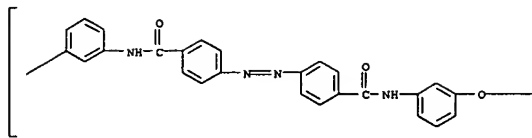
RN 206271-94-5 CAPLUS

CN

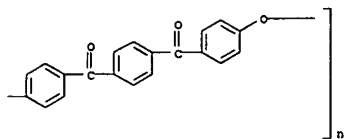
Poly(oxy-1,4-phenylenecarbonyl-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,3-phenyleneimino-1,4-phenyleneazo-1,4-phenylenecarbonylimino-1,3-phenylene), (E)- (9CI) (CA INDEX NAME)

L15 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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PAGE 1-B

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:247470 CAPLUS

DN 128:2295128

TI Azobenzene modified poly(aryl ether ketone amide)s. I. Synthesis and physical properties

AU Jaycox, Gary D.

CS Experimental Station, Central Res. and Development, E. I. Du Pont de Nemours and Co., Wilmington, DE, 19880-0328, USA

SO Polymer (1998), 39(12), 2589-2596

CODEN: POLMAG; ISSN: 0032-3861

PB Elsevier Science Ltd.

DT Journal

LA English

AB Azobenzene-modified poly(aryl ether ketone amide)s were prepared by low temperature polycondensation of trans-azobenzene-4,4'-dicarbonyl chloride with

1,4-bis[4-(3-aminophenoxy)benzoyl]benzene and other aromatic diamines containing

ether and keto groups. The polymers were amorphous with Tg 167-219° and having good thermal stabilities under N and air to .apprx.400°. They dissolved readily in a number of organic solvents giving stable solns. By employing conventional solvent casting

techniques, mech. robust polymer films were obtained with excellent levels

of optical clarity.

IT 206271-94-5P, trans-4,4'-Azobenzenedicarbonyl chloride-1,4-bis[4-

(3-aminophenoxy)benzoyl]benzene copolymer aru

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

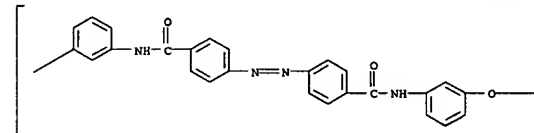
(preparation and properties of)

RN 206271-94-5 CAPLUS

CN

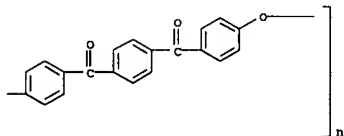
Poly(oxy-1,4-phenylenecarbonyl-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,3-phenyleneiminocarbonyl-1,4-phenyleneazo-1,4-phenylenecarbonylimino-1,3-phenylene), (E)- (9CI) (CA INDEX NAME)

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L15 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-B

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:149419 CAPLUS

DN 124:214758

TI Optical phase conjugation in polyesters with cyanoazobenzene units in the side chain

AU Nakagawa, Kazuo; Sato, Moriyuki; Mukaida, Ken-ichi; Fujiwara, Hirofumi

CS Department Materials Science and Engineering, Muroran Institute

Technology, Hokkaido, 050, Japan

SO Optical Review (1995), 2(6), 404-2

CODEN: OPREPN; ISSN: 1340-6000

PB Optical Society of Japan

DT Journal

LA English

AB Efficient optical phase-conjugate (PC) signals in four kinds of novel polyester films containing cyanoazobenzene units in the side chain are reported. One of them can efficiently generate only the photoinduced anisotropy (PA) component of PC signal, while the other three films can simultaneously generate two types of PC signals, PA and holog.

components. These polymers have good potential not only as a phase conjugator but

also as a polarization-sensitive hologram-recording material.

IT 152969-99-8

RL: PRP (Properties)

(optical phase conjugation in polyesters with cyanoazobenzene units in

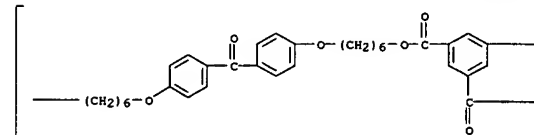
side chain)

RN 152969-99-8 CAPLUS

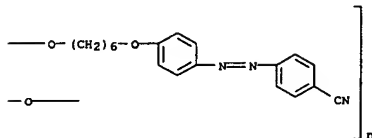
CN

Poly[oxy-carbonyl[5-[[6-[4-[(1E)-(4-cyanophenyl)azo]phenoxy]hexyl]oxy]-1,3-phenylene]carbonyloxy-1,6-hexanediyl]oxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,6-hexanediyl] (9CI) (CA INDEX NAME)

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L15 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)

L15 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:819401 CAPLUS  
 DN 123:257637  
 TI Synthesis, thermal and phase-conjugate properties of semirigid copolyesters with cyanoazobenzene side-chains and azoxybenzene units in the main chains  
 AU Sato, Moriyuki; Nakagawa, Kazuo; Hayakawa, Makoto; Mukaida, Ken-ichi; Fujiwara, Hirofumi; Tada, Yuji  
 CS Department of Materials Science and Engineering, Muroran Institute of Technology, Hokkaido, 050, Japan  
 SO Macromolecular Chemistry and Physics (1995), 196(9), 2955-67  
 CODEN: MCHPES; ISSN: 1022-1352  
 PB Huethig & Wepf  
 DT Journal  
 LA English  
 AB Melt polycondensation of mixture of di-Et 5-[6-[4-(4-cyanophenylazo)phenoxy]hexyloxy]isophthalate and 4,4'-bis(ethoxycarbonyl)azoxybenzene at various mole ratios with dihydroxyhexamethyleneoxy derivs. of diphenyls afforded new combined-type semi-rigid copolyesters containing cyanoazobenzene side chains and azoxybenzene main chain. The polymers were characterized by FTIR, <sup>1</sup>H and <sup>13</sup>C NMR spectroscopy and elemental analyses. Some cyanoazobenzene-rich copolyesters composed of di-Ph ether and benzophenone units formed liquid crystalline (LC) phases, but the other had no LC phases in spite of introduction of an azoxybenzene mesogen into the polymer backbone. Most of the copolymers consisting of di-Ph ether and benzophenone units generated simultaneously two types of phase-conjugate (PC) signals based on photo-induced anisotropy (PA) and holog. components at high reflectivities by degenerate four-wave mixing at low pump-beam powers, one of the third-order non-linear optical (NLO) properties. These copolymers could be used not only as phase conjugator, but also as erasable hologram-recording materials. The presence of the cyanoazobenzene side chains was of importance for the PC signal-generating process.  
 IT 152969-99-8P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (liquid-crystalline; preparation, thermal and phase-conjugate properties of semirigid copolyesters with cyanoazobenzene side-chains and azoxybenzene units in main chains)  
 RN 152969-99-8 CAPLUS  
 CN  
 Poly[oxy carbonyl 5-[[6-[4-[(1E)-(4-cyanophenyl)azo]phenoxy]hexyloxy]-1,3-phenylene]carbonyloxy-1,6-hexanediyl]oxy-1,4-phenylene carbonyl-1,4-phenyleneoxy-1,6-hexanediyl] (9CI) (CA INDEX NAME)

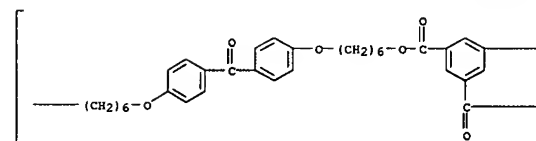
L15 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)

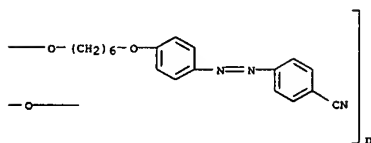
L15 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1994:107930 CAPLUS  
 DN 120:107930  
 TI Synthesis and properties of polyesters having cyanoazobenzene units in the side chain  
 AU Sato, Moriyuki; Hayakawa, Makoto; Nakagawa, Kazuo; Mukaida, Kenichi; Fujiwara, Hirofumi  
 CS Fac. Eng., Muroran Inst. Technol., Muroran, 050, Japan  
 SO Macromolecular Rapid Communications (1994), 15(1), 21-9  
 CODEN: MRCOE3; ISSN: 1022-1336  
 DT Journal  
 LA English  
 AB Polyester-polyethers with cyanophenylazo-containing side-chains were prepared by melt polycondensation of di-Et 5-[6-[4-(4-cyanophenylazo)phenoxy]hexyloxy] isophthalate with X(C<sub>6</sub>H<sub>4</sub>O(CH<sub>2</sub>)<sub>6</sub>OH-p)<sub>2</sub> (X = O, CO, CH<sub>2</sub>, direct bond) as stable materials both for showing liquid-crystalline (LC) alignment and for generating a phase-conjugate wave. The thermotropic LC and optical properties of the polymers were examined  
 IT 152969-99-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and thermotropic liq-crystalline and optical properties of)  
 RN 152969-99-8 CAPLUS  
 CN  
 Poly[oxy carbonyl 5-[[6-[4-[(1E)-(4-cyanophenyl)azo]phenoxy]hexyloxy]-1,3-phenylene]carbonyloxy-1,6-hexanediyl]oxy-1,4-phenylene carbonyl-1,4-phenyleneoxy-1,6-hexanediyl] (9CI) (CA INDEX NAME)

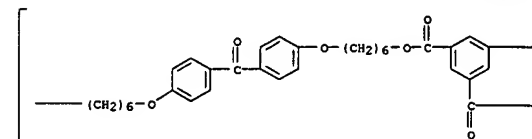
PAGE 1-A



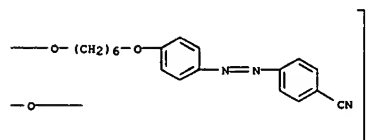
PAGE 1-B



PAGE 1-A



PAGE 1-B



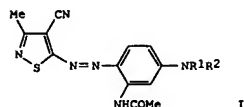
L15 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)

L15 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1992:614706 CAPLUS  
 DN 117:214706  
 TI Arylazaisothiazole-based dye-containing thermal-transfer donors  
 IN Mikoshiba, Takashi; Tanaka, Mitsugi; Morigaki, Masakazu; Kubodera, Seiichi  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 32 pp.  
 CODEN: JKOXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04148987	A2	19920521	JP 1990-273573	19901012
JP 1990-273573		19901012		

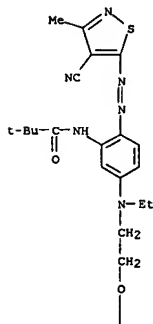


AB Thermal-transfer donors, giving lightfast images contain A(LB)q dyes (A = substituted-5-arylazaisothiazole residue; B = color-fading-preventive group; L = a direct bond or divalent group; q = 1-2). Thus, a donor sheet containing poly(vinyl butyral) and I (R1 = Et, R2 = p-MeOC6H4OCH2CH2-) was placed in contact with an image-receiving sheet and heated by a thermal head to give images having maximum d. 2.8 with d. retention 96% after 1 wk under 12,000-lx fluorescent lamp.  
 IT 144289-49-6  
 RL: USES (Uses)  
 (dyes, lightfast, for thermal-transfer inks)  
 RN 144289-49-6 CAPLUS  
 CN Propanamide,  
 N-[5-[[2-(4-benzoyl-3-hydroxyphenoxy)ethyl]ethylamino]-2-[[4-(4-cyano-3-methyl-5-isothiazolyl)azo]phenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)

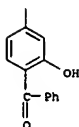
L15 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)

PAGE 1-A



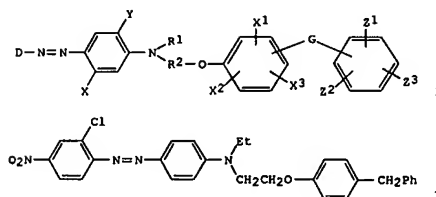
PAGE 2-A



L15 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN

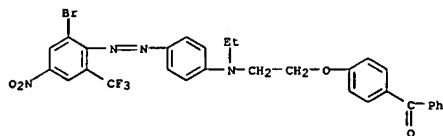
AN 1990:633332 CAPLUS  
 DN 113:233332  
 TI Disperse monoazo dyes for hydrophobic fibers  
 IN Yamamoto, Jun; Ueda, Yasuyoshi; Omura, Takashi; Yamamoto, Yosuke; Hattori, Hideo; Sekihachi, Junichi  
 PA Sumitomo Chemical Co., Ltd., Japan  
 SO Eur. Pat. Appl., 21 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 363904	A2	19900418	EP 1989-118809	19891010
EP 363904	A3	19901024		
EP 363904	B1	19950405		
R1: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 02255866	A2	19901016	JP 1989-208528	19890811
JP 2785365	B2	19900813		
US 5075429	A	19911224	US 1989-419327	19891010
ES 2070876	T3	19950616	ES 1989-118809	19891010
KR 9709393	B1	19970612	KR 1989-14569	19891010
PRAI JP 1988-256772	A	19881011		
OS MARPAT 113:233332				

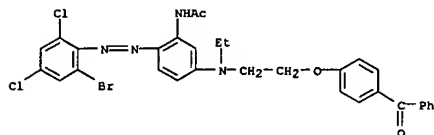


AB The title dyes I [D = (un)substituted heterocyclic or carbocyclic residue;  
 G = carbonyl, carbonyloxy, oxycarbonyl, imino, O, S, CH=N, SO2, NHCO, OSO2, NHCO2, (un)branched C1-6 alkylene, direct bond; R1 = H, C1-6 alkyl, (un)substituted C1-4 alkoxy, C1-4 alkoxy-carbonyl, C1-4 alkyl-carbonyloxy, C1-4 alkoxy-carbonyloxy, Ph, PhO, benzoyloxy, CN, C3-5 alkenyl; R2 = (un)branched C2-4 alkylene (un)substituted by OH groups; X = H, C1-4 alkyl, C1-4 alkoxy, acylamino, halogen, NHCONH2; Q = H, C1-4 alkyl, Ph; X1-X3, Z1-Z3 = H, Cl, Br, C1-4 alkyl, C1-4 alkoxy, C1-4 alkoxy-carbonyl, NO2; Y = H, halogen, C1-4 alkyl, C1-4 alkoxy, C1-4 alkoxy-C1-4 alkyl, C1-4 alkoxy-C1-4 alkoxy; R1 + Y with N and 2 C atoms may form a 5- or 6-membered ring], useful for dyeing or printing of hydrophobic fibers, especially polyester fibers, are prepared. Thus, 2-chloro-4-nitroaniline was

L15 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 diazotized and coupled with N-ethyl-N-2-(4-benzoylphenoxy)ethylaniline,  
 forming I,  $\lambda_{max}$  (DMF) 514 nm, which dyed polyester fabrics a fast  
 red shade.  
 IT 130661-67-5P 130661-81-3P 130662-12-3P  
 RI: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP  
 (Preparation); USES (Uses)  
 (manufacture of, as disperse dye for hydrophobic fibers)  
 RN 130661-67-5 CAPLUS  
 CN Methanone,  
 [4-{2-[[4-{2-bromo-4-nitro-6-(trifluoromethyl)phenyl}azo]phenyl  
 1]ethylamino]ethoxy]phenyl]phenyl- (9CI) (CA INDEX NAME)

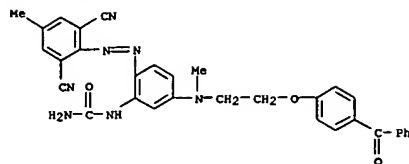


RN 130661-81-3 CAPLUS  
 CN Acetamide, N-{5-[[2-(4-benzoylphenoxy)ethyl]ethylamino]-2-[(2-bromo-4,6-  
 dichlorophenyl)azo]phenyl]- (9CI) (CA INDEX NAME)



RN 130662-12-3 CAPLUS  
 CN Urea, [5-[[2-(4-benzoylphenoxy)ethyl]methylamino]-2-[(2,6-dicyano-4-  
 methylphenyl)azo]phenyl]- (9CI) (CA INDEX NAME)

L15 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

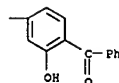


L15 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1989:535960 CAPLUS  
 DN 111:135960  
 TI Benzophenone ether esters for improved fastness in disperse dyeing  
 IN Neumann, Peter; Wegerle, Dieter; Krallmann, Reinhold  
 PA BASF A.-G., Fed. Rep. Ger.  
 SO Eur. Pat. Appl., 14 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 FAN.CNT 1  

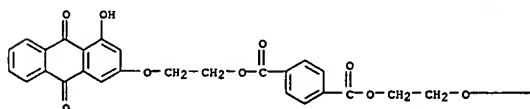
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 309909	A1	19890405	EP 1988-115564	19880922
EP 309909	B1	19921125		
R: DE, FR, GB, IT				
DE 3732980	A1	19890413	DE 1987-3732980	19870930
JP 01128956	A2	19890522	JP 1988-239876	19880927
US 4911732	A	19900327	US 1988-250118	19880928
PRAI DE 1987-3732980	A	19870930		
OS MARPAT 111:135960				
AB The title benzophenone deriva. have the structure [R1mC6H4-mCOC6H2(OH)(R2)- p-O(CH2)nOCO-]pZ (R1 = alkyl, CN, F, Cl, Br, CF3; R2 = H, alkyl; Z = aliphatic, cycloaliph., aromatic, or heterocyclic group; m = 0-2; n = 2-4; p = 2-4). Disperse dyeing of 100 parts polyester yarn in 1500 parts H2O containing 0.6 part dyes, 1.8 part polyoxyethylated (d.p. 50) sperm oil sulfate, and 1.5 part 2-hydroxy-4-(2-hydroxyethoxy)benzophenone 4-(2-hydroxyethoxy)benzophenone succinate (1:1:1) (I) gave a brown dyeing distinctly more stable to Xenotesting (75°, 80% relative humidity) than without I. IT 122881-83-8 RI: USES (Uses) (light stabilizers, for disperse dyeing) RN 122881-83-8 CAPLUS CN 1,4-Benzenedicarboxylic acid, 2-(4-benzoyl-3-hydroxyphenoxy)ethyl 2-[(9,10-dihydro-4-hydroxy-9,10-dioxo-2-anthracenyl)oxy]ethyl ester (9CI) (CA INDEX NAME)				

L15 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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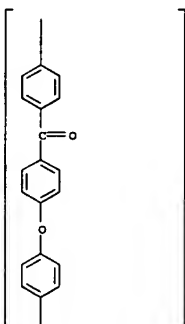


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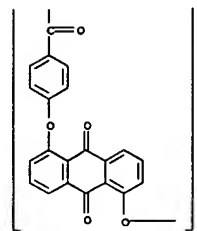
L15 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1988:493722 CAPLUS  
 DN 109:93722  
 TI Simple synthesis of polyketones containing anthraquinone units  
 AU Ueda, Mitsuru; Sugita, Hiroya; Waragai, Takako  
 CS Fac. Eng., Yamagata Univ., Yamagata, 992, Japan  
 SO Polymer Journal (Tokyo, Japan) (1988), 20(5), 433-7  
 CODEN: POLJ88; ISSN: 0032-3896  
 DT Journal  
 LA English  
 AB Polyketones containing anthraquinone units were prepared by the direct polycondensation of 1,5-diphenoxanthraquinone with aliphatic and aromatic dicarboxylic acids, in the presence of P2O5-methanesulfonic acid as condensing agent and solvent. Model compds. were prepared using monocarboxylic acids.  
 IT 116000-S1-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, in phosphorous pentoxide-methanesulfonic acid solution)  
 RN 116000-S1-2 CAPLUS  
 CN Poly[oxy(3,10-dihydro-9,10-dioxo-1,5-anthracenediyl)oxy-1,4-phenylene]carbonyl-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

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L15 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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L15 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1977:163598 CAPLUS  
 DN 86:163598  
 TI Pyrazoloneazo dye-releasing coupler for diffusion-transfer photographic materials  
 IN Fujita, Shinsaku; Harada, Tohru; Sakanoue, Seiki  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 21 pp.  
 CODEN: JPOKXAF  
 DT Patent  
 LA Japanese  
 FAN, CNT 1  

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51133021	A2	19761118	JP 1975-57040	19750514
JP 57012982	B4	19820313		
JP 1975-57040	A	19750514		

 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Diffusion-transfer photog. materials contain, in sl of their Ag halide emulsion layers, a diffusable pyrazolonylazo dye-releasing coupler in which the pyrazolonylazo dye group is bonded via an O-containing group to

the coupler part. The coupler does not release N during development, and gives a high-quality yellow dye. Thus,  
 1-phenyl-3-(N-hexylcarbamoyl)-4-(p-sulfamoylphenylazo)-5-pyrazolone 5 g was treated with chlorosulfonic acid 25 mL at 10°. The resulting 1-(p-chlorosulfonylphenyl)-3-(N-hexylcarbamoyl)-4-(p-sulfamoylphenylazo)-5-pyrazolone 4.1 and 1-hydroxy-4-[4'-(4'-aminophenyl)-1',4'-dioxabutyl]-N-dodecylamino-2-naphthamide 4g were dispersed in THF 88 mL, pyridine 5.6 mL added, the mixture stirred for 4.5 h, and the reaction products were added to 1% HCl 500 mL to precipitate the coupler I (m.p. 196-8°). Then, I was added to

a high-sensitivity neg. type red-sensitive Ag(Br,I) (7 mol% I) emulsion sensitized with 3,3',9-triethyl-5,5'-dichlorothiacarbocyanine iodine, coated on a gelatin-coated cellulose triacetate support so that the amts. of I, Ag halide, and gelatin in the red-sensitive emulsion layer were 1.5 + 10-5, 7.5 + 10-5 mol, and 20 mg/100 cm<sup>2</sup>, resp., overcoated with gelatin 6.5 mg/100 cm<sup>2</sup>, exposed through an optical wedge and a red filter to a 2854 K W-lamp, placed on a receptor sheet prepared by coating baryta paper with a solution containing a polymer having the structure

II (mol. weight 30,000-40,000) 35 and gelatin 7%, and processed with a solution containing

ascorbic acid 0.2, 3-methyl-N-ethyl-N-(β-hydroxyethyl)-p-phenylenediamine H2SO4 salt 35, KBr 1.4, 6-nitrobenzimidazole HNO3 salt 0.2, hydroxyethyl cellulose 30, and NaOH 20 g/L to give an image having a maximum and min. d. of 2.0 and 0.10, resp., vs. 1.9 and 0.10, resp., for

a control containing III instead of I.

IT 62555-58-2

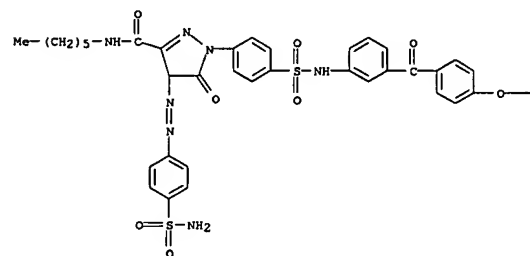
RL: TEM (Technical or engineered material use); USES (Uses)  
 (photog. yellow coupler, for producing pyrazolonylazo dye images)

RN 62555-58-2 CAPLUS

CN 1H-Pyrazole-3-carboxamide, 4-[[[4-(aminosulfonyl)phenyl]azo]-1-[4-[[[3-[4-

L15 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 [1-[[[5-[[4-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]-2-chlorophenyl]amino]carbonyl]-3,3-dimethyl-2-oxobutoxy]benzoyl]phenyl]amino[sulfonyl]phenyl]-N-hexyl-4,5-dihydro-5-oxo- (9CI) (CA INDEX NAME)

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